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Communications.

THE MANAGEMENT OF THE PERINEUM IN LABOR.

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Read before the Northern Medical Society of Philadelphia.

I have felt some hesitation in presenting a subject for discussion this evening which may be considered by some of trifling importance, and because it will be necessary for me to say much that is familiar and even trite. But authorities are so conflicting, not only as to how rupture of the perineum may be prevented, but in their appreciation of the importance of the accident as well as of the means of remedying it, that I have thought that it might be well to open the discussion, to draw out the views of those whose experience in obstetrics must be much greater than my own.

In the first place, let us briefly review the anatomy and physiological relation of the perineum, after which we will be able to take up understandingly its relations to labor, to the causes, prevention and cure of rupture.

The perineum is that portion of the integument between the posterior commissure of the vulva and the anal aperture; it forms the base or external surface of the perineal body, the wedge of tissue filling the space caused by the anterior curve of the vagina, and the posterior curve of the rectum. The perineal body varies in size and thickness, following to a certain extent the embonpoint and general muscular development of the woman. It is generally rather more than an inch between the vaginal and anal apertures, and one and a quarter to one and a half inches, measured up the posterior wall of the vagina, where it imperceptibly grades off into the proper wall of that canal. It is composed of muscular, yellow, elastic and fibrous tissues, and is therefore contractile, elastic and resistant. These several tissues meet and are blended together in a central point of support and union, which corresponds with the central tendon of the perineum in the male. Here we have inserted the superficial transverse perineal muscles, which stretch across the pelvis to the rim of the ischia, the anterior attachment of the "sphincter ani," and the posterior attachment of the bulbo-cavernous muscle; and deeper, some of the median fibres of the ischio-coccygeus. In the perineal body, also, the ischio-perineal ligament is attached. This is a strong band of fibrous tissue, which divides laterally the outlet of the pelvis into about two equal portions. It is formed, according to Savage, by the "union of the superficial perineal fascia with the inferior border of the perineal septum." These muscular and fibrous tissues are mingled in the perineal body with considerable yellow, elastic, and the ordinary cellular tissue. Blood vessels from the pubic artery are large and abundant, and the softening and flaccidity of the perineum in labor is chiefly due to its vascularity. The nervous supply comes from the pubic nerve.

The perineal body forms a most important part of the floor of the pelvis. It is one of the most important supports of the vagina, and indirectly of the womb itself, as the position of the latter depends in great part upon the integrity of the vagina. Remove the perineum, and the lower part of the vagina becomes a wide,

open funnel, and prolapse of the anterior or posterior wall, or both, soon followed by a settling down or other displacement of the uterus, is pretty sure to occur. This may or may not go on to a condition of complete proci dentia. The muscles and pelvic fascia, which close the orifice of the vagina by lateral traction upon its walls, have lost their point of central support, the tube gapes wide open, and we have added all the evils from contact of air with a mucous membrane not accustomed to its presence. The entrance of air can often be demonstrated by the mortifying explosions which are complained of when a sudden change of position forcibly expels it. The sexual feelings are also blunted, as the bulbo-cavernous muscles can no longer act with vigor upon the clitoris. These evils are not usually experienced very soon after the loss of the perineum, hence I think they are not always properly appreciated by the obstetrician, unless he also turns his attention to gynecology. We should, therefore, listen to the experience of such men as Emmet and Goodell, and it is a significant fact that the former found it necessary to remake the perineum in all but twenty-six out of one hundred and eighty cases of procidentia. In severe cases, with laceration of the sphincter and the lower part of the rectum, the patient's suffering is greatly augmented by incontinence of fæces, making her life a disgusting burden to herself and removing her from the society of her friends.

In labor, the perineum offers the last point of resistance to the emergence of the presenting part, and a nice adaptation of force to resistance is necessary for a happy termination in the fourth stage of the mechanism. In the ordinary presentation of the head the vertex is forced down upon the muscular floor of the pelvis, which rotates it to the front and presses it beneath the pelvic arch; the perineum is distended, forming an elastic splint, carrying out the general curve of the pelvis. Between the downward pressure of the uterus and the forward pressure of the perineum, the head is gradually turned out in a movement of extension around the pubic symphysis; the anterior fontanelle, the brow, the face, and finally the chin, successively appear over the anterior edge of the perineum. If the contraction of the womb and the woman's voluntary efforts are relatively too strong, the head will be forced directly through the perineum, while if the latter resist unduly, the labor will cease until delivery is effected artificially. The shoulders rotate in the same way and are delivered fore and aft, and it must not be forgotten that bad management in their delivery may rupture a perineum which has escaped injury from the passage of the head.

The main causes of rupture may be classed as follows :—

1. Those in the perineum itself, as small size of the vulvar orifice, actual or relative, undue rigidity, or the presence of cicatrices or morbid growths.

2. Causes precipitating delivery, as violent pains and muscular efforts on the part of the patient and the use of ergot. These act by overcoming the normal function of the perineum, and hurrying the delivery before the mother's tissues have had time to dilate sufficiently.

3. Bad positions are frequently causes of rupture, as the birth of the head in extreme flexion, when the vertex is directed posteriorly.

4. Certain deformities of the pelvis which interfere with the normal movements of the presenting vertex, as a straight sacrum, or narrow pubic arch. And last, but not least by any means, the doctor is frequently the cause of the accident through the improper and violent use of the forceps. In the limits of such a paper as this, I cannot stop to enlarge upon many of these causes of laceration, as their proper treatment would occupy too much time. When the danger to the perineum rests in too violent uterine contractions, reinforced, as they usually are, by strong reflex tenesmic efforts, the full influence of an anæsthetic is invaluable. It makes the patient perfectly passive, and has a marked effect, besides, in relieving the spasms of the muscles of the perineum brought about by severe pain. Faulty positions of the head cannot always be rectified, and the perineum is unavoidably torn in the delivery. Such a case occurred to me, where, in a primipara, with the vertex in the hollow of the sacrum, forceps were necessary to sufficiently flex the head, and in spite of the greatest care the perineum was completely lacerated, the wound extending into the rectum. Much could be said for and against the use of the forceps. Their careless use will almost certainly injure the mother's tissues, while in skillful hands they may be made to have the exactly contrary effect.

With the patient thoroughly relaxed and anæsthetized, the head may be safely delivered, where an accident would have surely occurred if the patient had been allowed to use voluntary efforts, which are so apt to spoil all by coming at the most inopportune moment. Sometimes we cannot safely afford to increase the lateral diameter of the head by so much as the blades of the forceps; and then it is a good rule to take the latter

off just before the perineum is passed, and trust to nature's efforts, aided by pressure on the child's face through the rectum.

Can anything be done especially to save the perineum in ordinary cases? I will not detain you with even a catalogue of the various plans which have been suggested. Many of them, like the ancient folded napkin, are worse than useless, because they increase the difficulty and distress by adding outside pressure to the parts already suffering from too much pressure from within, besides drying and overheating the parts. Any good resulting from supporting the perineum in the old way is limited to retarding the delivery of the head and assisting the movements of extension, and this can be better accomplished in another way. Now the perineum is usually torn just where the emergence of the forehead causes the vulvar commissure to slip rapidly back over the face, and it will be found, I think, that it is this backward movement plus the outward bulging which throws too great a strain upon the comparatively inelastic ischio-perineal ligaments which offer the chief resistance to the dilating force. Therefore a method which prevents the slipping back too suddenly of the perineum, while it assists nature in keeping the occiput well applied under the arch of the pubis, in other words, favoring the normal movement of extension, accomplishes, it seems to me, all that can be done to avert accidents. Dr. Goodell's plan of drawing forward the perineum with two fingers in the rectum, while the thumb presses the occiput under the pubic arch, seems to be the best means for this purpose. It offers the additional advantage of leaving the perineum itself undisturbed, and sufficient force can be brought to bear directly upon the occiput to prevent the delivery for an indefinite period. The only objection to this procedure which I have noticed, is that the fingers drawing upon the anus seem to increase somewhat the already violent reflex tenesmic efforts. With incising the labia I have had no experience, as in my cases I have not felt justified in so doing, not being sure that laceration would occur, and occupying my attention with nearer means. Great care should be used in the delivery of the shoulders. If the pause after the birth of the head appears to be jeopardizing the life of the child, the uterus should be smartly rubbed and the woman urged to bear down. This not succeeding, the coccygeal shoulder should be carefully drawn out in the line of Carus' curve, avoiding all unnecessary haste and violence. But in spite of the greatest care, the perineum will be lacerated occasionally, especially in primiparous labors. My limited experience does not bear out the statement that this is most liable to occur in the muscular women of the working classes. On the contrary, my cases have occurred in those whose circumstances have allowed them to live more luxuriously. Like many other difficulties in parturition, it seems to be one of nature's penalties which women have to pay for the comforts of advancing civilization.

How are we to know that the perineum has been torn? This would seem to be a superfluous question, were it not certain that the accident is frequently overlooked until, perhaps, the contact of the urine with the raw surface causes the woman to complain of pain and smarting. I do not know how far the injunction to perform the various obstetrical manipulations under cover of the sheet is generally carried out, but for my part, I generally see the progress of the fœtus through the vulva, and can note any damage to the mother's tissue. Nor can I see any impropriety in inspecting the parts after the placenta is removed, and the woman ready to be made comfortable. The eye, however, is not always sufficient. In a case of a primipara, whose labor progressed normally, the head passed the perineum without as much as turning the fourchette, and I was pleased to believe that the tissue had escaped all harm; but in a few days, in searching for the cause of soreness and smarting in passing water, the perineal body was found to have been lacerated completely, while the integument escaped. It is a good rule, therefore, to pass the index finger into the rectum and the thumb into the vagina, when the amount of the perineal body remaining can be accurately determined.

What shall be done, when the perineum has been lacerated? If the rupture is complete, that is, involving the sphincter ani, all are agreed that sutures will probably be necessary, not only to rebuild the floor of the pelvis, but to save the womb. Even such a severe injury has been known, however, to heal spontaneously. Hoping for this happy but rare termination, and believing that the operation can be better done afterwards, Cazeaux offers the somewhat strange advice, that nothing should be done until after the woman has menstruated. I do not know to what extent French ladies delegate the care of their infants to wet nurses, but if lactation follows in the usual course, this would postpone the operation for about a year or more, during which time the patient would be subject to all the miseries of an uncontrollable rectum. Besides, I do not be-

lieve that the surfaces can be generally so accurately freshened after cicatrization, as to give the same prospect of good union as in the primary operation. But this severe grade of injury is, fortunately, comparatively rare; the form most commonly noticed is the incomplete rupture, involving more or less of the perineal body, but leaving the sphincter ani intact. In treatment, many good authorities advise you to bind the knees together and leave the rest to nature, hoping that union by first intention will take place. I do not know what the experience of others may be, but I have looked in vain for this happy result in cases involving to any extent the perineal body, and I think the reason is plain. The rupture has divided the central support of muscular and fibrous tissues, which will inevitably separate and retract, unless they are held together by more efficient means than a napkin around the knees. The wound gapes, and after days, even weeks, of pain and discomfort, finally heals by cicatrization. But there are those who say that this healing is sufficient for health and comfort. It undoubtedly leaves the vulvar orifice so wide open that subsequent deliveries are not from this cause impeded, but the cause of prolapse of vagina and womb in after years point to a different moral.

Even if no prolapse of vagina or uterus follows—and undoubtedly many women with lacerated perinei go through life without suffering from displacement due to this cause—it has been well demonstrated that many nervous symptoms are due simply to the irritation of the nerves involved in the cicatrized tissue of the perineum, when that tissue has been allowed to heal by granulation. Moreover, for the comfort of the patient and the speedy healing of the wound, it is, in my opinion, worth while to close it. The objection urged, that the track of the sutures may offer surface for the absorption of septic poison, is idle, for the sutures close a surface many times greater, through which the system would be much more apt to become infected.

Good authorities have stated that their experience with the primary operation has been disappointing, that the puerperal state, the lochial discharge, etc., have prevented union, and caused the operation to fail. If this were the universal testimony, it should certainly deter us from operating until the lying-in period is over. But many of those best able to advise us, testify otherwise. I feel diffident in offering my very little experience, which only extends to nine cases. In not one of these, however, did primary union entirely fail; in two, a part of the surface failed to unite, but a sufficient groundwork was secured to make good perinei. In the others the result was perfect. In those cases where the sutures are cut out before union takes place, we have a right to suspect that they have not been properly placed. A suture which has been inserted deeply enough to embrace in its grasp the entire rent *cannot* be cut out in any reasonable period.

I would, therefore urge, that in cases where the rupture involves the deeper structures of the perineal body, the wound should be carefully united, and the result will, in all probability, be satisfactory. Any objection to the operation based upon a desire not to call attention to an accident which may be attributed to an over bad management, is not worthy of the conscientious physician. The temptation is great, however, to leave in peace a patient worn out with sore travail, but this should not weigh against our responsibility to do our whole duty for her future happiness and comfort.

In performing the operation, a medium-sized curved needle (it is better without the lance point, which unnecessarily wounds the tissues), silver or good iron wire, a pair of scissors, a clean sponge, or absorbent cotton, a basin of water, two assistants, and good light, is all that is needed. The patient is laid on her back with the buttocks on the edge of the bed, while assistants seated on either side receive the feet in their laps and support the knees. If an anæsthetic has been used in the labor it may now be readministered, although the pain is not severe, the parts being benumbed and bruised. The parts are carefully cleansed from blood. Bleeding is almost never troublesome, as the wound is lacerated and in the median line, where the vessels are small. If the discharge from the womb is free, a tampon may be placed in the vagina until the sutures are inserted, and removed before the latter are twisted. The needle should be introduced well back from the wound, and made to reach the very bottom of the laceration, while the one nearest the vulva is made to take in the vaginal mucous membrane a short distance above the rest. This will drive down the vaginal mucous membrane to cover the wound and prevent the discharges from finding their way behind the sutures. If the sutures are not carried deep enough, the union will not be complete, a pocket being left behind them, which will have to heal by granulation. After a sufficient number of wires have been introduced, they should be tightened by twisting in the same order as they were introduced, that is, beginning with the upper

one. It will be convenient, in facilitating their removal, to leave the twisted ends fastened together at their extremities, projecting for an inch and a half or two inches, as recommended by Dr. Emmet. In this way the position of the sutures is evident to the nurse, and they can be readily avoided in the necessary brushing and anointing of the parts, and the long end facilitating their removal. After the completion of this simple operation, a towel should be pinned around the knees to prevent accident. In the after treatment very little is necessary. At first I deemed it necessary to draw the urine with the catheter, but I am satisfied now that it is useless, the contact of freshly voided urine not seeming to do any harm.

If the rectum has not been involved, I would not attempt to prevent the natural movement of the bowels, as I have not seen any injury result. If the nurse is sufficiently trustworthy, I would direct the use of a solution of permanganate of potassa, three times daily, as vaginal injection. This will prevent the retention of any decomposed urine or lochia, and it is a comfort to any patient after delivery. The sutures may be left five to seven days, and their proper removal requires some little tact and delicacy. The twisted ends are separated by cutting the wire uniting them, and in turn each loop is divided, using the long end as a guide for the scissors. They are then seized with forceps and turned out in the curve which the wire has taken. Efforts to pull them out in a straight line causes much pain, and may endanger the union of the part. It is scarcely necessary to say, that until the union is perfect, the bed-pan should be used. The last patient upon whom I operated walked across the room from the bed to the commode, which performance, however, did not compromise the result; but I would not recommend such feats as a general rule. In these brief hints at the details of the operation, I do not wish to be understood as claiming that they are better than any others; they simply illustrate my own plan, and undoubtedly in other hands, the operation has been equally successful. In conclusion, I cannot help urging a reconsideration of a question which has been too hastily passed over, I think, as one of slight importance. When we consider how many of the ailments of women have their origin in the critical period of childbirth, it behooves us, as their guardians at that time, to do all in our power to bring them through unharmed, and slight nothing which may bear upon their future comfort and happiness.

Philadelphia, Oct. 11th, 1881.

THE TREATMENT OF HYDROCELE.

BY J. S. WIGHT, M.D.,

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In order to obliterate the sac of the tunica vaginalis testis in a case of hydrocele, for a number of years I have been in the habit of performing the following operation:—

After the administration of an anæsthetic, the sac is penetrated in front, near the lower part, by a long curved bistoury, whose point is brought out of the sac in front near the upper part, making two openings in the front wall of the scrotum, through which the hydrocele fluid can be evacuated, while the bistoury is uniting them into one general anterior opening into the sac. This operation is very rapidly and easily done, and it is not often that a blood vessel has to be ligated.

The testicle is carefully examined: It is left in place if healthy, and removed, if it is diseased, so as to make such procedure necessary. And, if, as I have sometimes seen, there is gelatinous fibroid material about the testicle, it is carefully removed with a pair of scissors. The opened cavity may be washed out with a two per cent. carbol. solution, and then packed with oakum containing carbolized oil, which can be kept in place by a proper bandage. This oakum must be left in for two or three days, or until more or less suppuration takes place, so that it can be removed easily without injury to the young granulation tissue, and without causing any bleeding. After this the wound of operation may be dressed with oakum, carbolized or not, from day to day, the waste products being carefully removed, till scar tissue is formed, and the sac is obliterated, which generally occurs in a few days.

This operation has a number of advantages; for instance:—

1st. A patient having the above operation performed on him, is sure to have a radical cure.

2d. It is one of the safest operations I have ever performed. All the cases I have ever operated on have not had any unpleasant symptoms, but have done well. I am inclined to consider this method of the radical cure of hydrocele as safer than any method of radical cure by injecting the sac with an irritating fluid in order to cause inflammation and adhesion. In operating by injection, I have found the general disturbance at times very marked, and have had to open the sac by a free incision, just as it is necessary to open an abscess. In such a case the free opening had better have been made in the first place.

3d. It is a fact that open wounds properly treated do well, since there is an unobstructed exit for waste products, and less infiltration and tension on the tissues. The wound of the above operation is treated openly, and theoretically and practically does well, as I have always found.

4th. One of the most important advantages in this plan of treatment consists in the fact that a testicle may be so diseased as to require removal, and that it can be readily found out, when there can be a complete inspection of the organ after being laid bare. Any one can see the perils of acute inflammation in the serous and peri-serous tissues around a diseased testicle. I have more than once been obliged to remove a diseased testicle, after having performed the operation for radical cure of hydrocele by incision. In such an event the patient has to submit to only one operation, and that a comparatively safe one.

5th. The patient suffers less pain during the repair of the scrotal tissues after this radical operation, than during the inflammation following an injection operation due to the tension of infiltration—plastic or purulent. My attention was called to this point in a forcible manner by the following case: A man about sixty years of age, and whose health was not very good, had a hydrocele tapped by me with an exploring needle—the hydrocele fluid escaping slowly along the groove of the needle; acute inflammation supervened, and brought about a radical cure: but the pain was very great, causing my patient extreme suffering, and putting him in imminent peril.

I have treated other sacs, such as the pre-patellar bursa, and the compound ganglion of the flexor and extensor tendons of the wrist, in a similar manner, with gratifying results. I have reported two cases of compound ganglion of the wrist treated on this plan. To this I add the following case: In the month of June, 1881, I operated on a case of compound ganglion of the sheath of the common extensor, and the extensor indicis of the right wrist of a lady who had an unsuccessful operation performed at a previous time. I made two openings and completely evacuated the fluid and the fibroid bodies from the sac, washing out the sac with a strong carbol. solution. This patient has quite completely recovered, the sac being obliterated and largely absorbed. The motion of the parts appears to be as good as ever. This was a patient of Dr. J. C. Snively, who carried out the after treatment.

There is, however, one point of difference in the treatment of these compound ganglia as compared with that of hydrocele. In order to save the integument and make the scar tissue as small as possible, two openings are made into the sac of the compound ganglion, while in the sac of hydrocele one large opening is made. Also, in the case of an operation for radical cure of compound ganglia, that is, during the after treatment, it is important to keep up constant and careful passive motion, in order that the structures may have as little loss as possible, when the patient comes to use the limb.

In fine, so well am I satisfied with the above plan of treating hydrocele after some years of experience, that I do not contemplate the carrying out of any other plan. At the same time I do not condemn the plan of treatment by injection.

Hospital Reports.

COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

CLINIC OF PROF. H. B. SANDS.

Necrosis of the Lower Jaw.

Case 1.—This little girl, gentlemen, is four and a half years old. She is brought here with a large swelling of the left side of her face. The present trouble has lasted for six months, and the first sign of it noticed was a slight swelling of the same side of her face. The doctor under whose care she has been, tells us that there has been a discharge of hard, stringy pus from an opening inside of the mouth; he has probed this opening, but made no particular discovery. Two weeks ago redness was noticed in the swelling; it exists now, you observe; it was attended by pain.

This may be an abscess, or it may be a morbid growth, and we must make a thorough examination of the tumor, both externally and by the mouth. Before doing so, however, I shall put the child under ether, for it is useless to make the attempt otherwise. The child, then, being etherized, we examine the tumor externally, and find a point of rupturing, which gives the sense of fluctuation. The situation, however, does not positively indicate the presence of pus. Within the mouth I see pus exuding from an orifice. I pass a grooved director into a long tract without difficulty, until the instrument touches bone, when I get a grating sensation. I now pass a narrow bladed knife along the director in order to let out the matter. Examination of the bone now, with the finger, discloses the presence of loose bone at the end of the sinus; after extracting the dead bone, the surface of the bone is smooth, and I am confident that all of the dead bone is removed.

The child will now recover. If any pieces of bone have been left behind in the wound, they will be washed out by the syringe. We keep the mouth clean with salt water, to which, for antiseptic purposes, a little Labarraque's solution may

be added. This is the simple treatment. The swelling will subside; the child will recover. Had the dead bone been allowed to remain when we found it, she would have been sick indefinitely.

Commencing Caries of the Cervical Vertebræ.

CASE 2.—This boy is eight years old. The mother has been healthy and all the other children are healthy. Three weeks ago the patient received a blow upon the right side of his lower jaw. Almost immediately he began to have stiff neck; there was also swelling of the neck, just under the jaw. At present, you observe, the child turns his head to the left side, and holds it rigidly in that position. He cannot turn his head to the right, for it pains him to attempt the movement.

We examine the jaw first, and find it intact: there has been no fracture; there is no severe contusion now; the bone seems to be healthy. Underneath the jaw is a prominence due to the existence of a firm, hard, nucleated swelling, which I appreciate as a swollen lymphatic gland.

The malposition of the head is not accounted for by the history given. It is possible that simultaneously with the other injury, he received a blow upon the neck. Or he may have been on the eve of having something about to produce the malposition when he was injured. It is possible that it is a case of torticollis. Persons are liable to wry-neck just as they are to talipes. A muscle of the neck may contract, just as the muscles of the leg contract to give us the various forms of club-foot. And in the case before you, it is possible that the sterno mastoid muscle of the right side may be contracted to produce the abnormal position of the head, which you see is marked. We must, therefore, examine the condition of the muscle. We do so, and find that it is in a state of entire relaxation, and, of course, it does not produce the deformity.

The change of position may be due to division of the cervical vertebræ, *i. e.* to caries of the vertebrae. That is not an infrequent cause of this malposition of the head. Before the clinic I made a slight examination of the vertebræ of the neck through the mouth, with my finger. I found, however, no evidence of disorder of the bones. But that is a negative sign, for malposition of the head may take place before there are any physical signs of division of the bones. We must further examine the spinous processes of the vertebræ. If disease exist of the nature which we suspect, there will be tenderness of the spinous process. We look for tenderness before we expect to find deformity. In this case we find marked tenderness over the spinous process of the fourth cervical vertebra.

My suspicion is, that the boy has commencing inflammation of the cervical vertebræ. I am not certain that caries exist here, however. Inflammation of the fibrous structures external to the spinal canal might cause this trouble. Only one other cause occurs to me now: namely, contraction of the splenius colli muscle. The patient may be suffering from contraction of the splenius colli muscle of the left side, which may have been caused by injury to the nerve, due to the accident.

We prescribe some liniment for this case: something to relieve the pain. In time the symptoms will become more marked and enable us to be more certain in our diagnosis. Considering that the malposition of the boy's head may be due to caries of the vertebræ, it is improper to use force for the purpose of restoring the head to the normal position. I have known great harm to come from force used in cases of wry neck, supposed to be due to contraction of the sterno-cleido-mastoid muscle, which was really owing to existing caries of the vertebræ. We give the patient a belladonna liniment or a soap liniment containing chloroform and laudanum. If the case prove to be one of chronic inflammation of the fibrous structure of the neck, we should apply something stronger. We could then use compound liniment of ammonia, or fly blisters, or the actual cautery.

Dactylitis Syphilitica.

CASE 3.—This little child, gentlemen, has marked swelling of the proximal phalanx of the ring finger. The swelling is painful and evidently deep-seated. Such cases in children are rare, and when they occur, are often due to constitutional syphilis. One way to make a diagnosis of syphilis, is to treat the patient for syphilis, and if he improves under such a course of medication, we may be certain that the diagnosis was correct. The patient before you has already been put upon the iodide of potassium, and manifests signs of improvement. We have every reason, therefore, to believe that this is a case of dactylitis syphilitica.

If iodide of potassium alone should fail, you may combine with it some mercurial, as the biniodide of mercury for example. For such a child as this (six or seven years old), the dose of the biniodide would be from one-fifth to one-sixth of a grain.

Anchylosis of the Last Joint of Thumb.

CASE 4.—This man cut his left thumb on a circular saw one year ago. The wound exposed the bone, opened the joints, and probably cut across the flexor tendons. The inflammation following resulted in producing anchylosis of the last phalangeal joint, which is now perfectly useless. There is no movement in it. There never is movement in joints which are truly anchylosed; in cases of false anchylosis, however, there may be some movement.

Necrosis of Bones of the Little Finger.

CASE 5.—Injuries about the hand are common enough among the laboring classes. This man injured his hand in a machine some time ago. The first joint of the finger was broken and the soft parts were badly lacerated. You observe here that the soft parts are swollen and have not healed. You will guess at once that the bone is diseased; that the presence of dead bone causes the morbid state of the finger. We examine the swelling more closely and find the opening of a sinus. We may discover the presence of dead bone in one of two ways, either by rubbing the bones together, or by probing the sinus. There is dead bone in this finger.

It is not necessary to remove the finger in this case, and unless it is necessary to do so, we never amputate any portion of the hand. Surgery in

such regions should be as conservative as possible. We lay the part open along the sinus, expose the bone, and cut away the diseased portions with the bone-forceps. It is better that you should do this with a short-bladed forceps, for they cut more neatly than long-bladed instruments. It is possible that you may get motion in the joint after such an operation as this, for the ends of the bones may be sufficiently far apart to prevent the occurrence of anchylosis.

Lipoma.

CASE 6.—This woman has a tumor in her right shoulder. The feeling reveals that it is a lipoma, a fatty tumor in the subcutaneous connective tissue. The only remedy is removal of the tumor. It is not worth while to attempt any other means of cure. But it is not always expedient to remove these tumors. If they are small and are not situated on a visible part, and if they give no trouble to the patient, I should not advise an operation. If they are growing rapidly, or if they are of large size already, it is best to amputate them.

MEDICAL SOCIETIES.

THIRD CONGRESSIONAL DISTRICT, INDIANA MEDICAL SOCIETY.

SEVENTH SEMI-ANNUAL MEETING.

Reported for the MED. AND SURG. REPORTER.

The association was called to order Nov. 7th, at New Albany, by Dr. E. P. Early, President, and after reading and adoption of minutes, the regular reports of the members began.

The first paper read was by Dr. J. L. Stewart, on therapeutics. Dr. Stewart, after devoting considerable space in disparaging the prevailing skepticism on the subject of the efficacy of remedies used in medicine, strongly advocated the trial of new remedies, before a verdict is pronounced upon their efficiency. He denounced the expectant plan of treatment as founded upon a fraudulent principle, and claimed for the science of therapeutics, an advance equal to what has been made in the kindred sciences of physiology and chemistry. If not in the discovery of new remedies, then in the reduction of the old to active principles and the application to different conditions by other methods than those with which we were formerly familiar.

From his own experience Dr. Stewart advanced the following opinions:—

"Grindelia robusta, I have found useful in asthma, bronchitis, and like affections; jaborandi is a good diuretic, diaphoretic and sialagogue; yerba santa proves to be of value in diseases of the mucous membranes; cascara sagrada I esteem of undoubted merit as a tonic to the stomach and bowels. In my hands, in several cases of atonic dyspepsia and constipation, it has given prompt benefit. Experience has convinced me too that not all the preparations in the market can be relied upon, and results have been secured sometimes only after repeated trials of different manufacturers' preparations. Damiana as a tonic to the procreative organs, is, in my opinion, of real value. I will cite a case which is at least corroborative.

"Mr. O. and his wife, a gentleman and lady of intelligence and worth, after four years of unfruitful married life, sought my aid to secure an heir. After tracing the difficulty, as I believed, to the wife, I gave her, three times a day, a tablespoonful of the following:—

℞. Fl. ext. damianæ,
Tr. cincho. comp. āā ℥iv. M.

Within two months conception occurred, which resulted in the birth of a fine daughter.

"I venture to say that the remedies of which I have spoken, and many others at present before us, are not sufficiently employed to establish their character; therefore, in their behalf I submit as a motto, 'a trial before a verdict.'

"Our most reliable agents at the present time have undergone many variations in the scale of favor and disfavor with the profession, to be finally adopted by the great mass of intelligent men. Many others, after long application to particular states, have been found to possess attributes that make them serviceable to conditions different from those to which they were originally applied. Ergot, as a single example long looked upon as a stimulant to contract the gravid uterus, is now, in other important pathological states, a most reliable agent.

"May we not by persistent experiment and application, develop new qualities of other agents now in our hands, and thus add something of benefit to the profession in which we *labor?*"

Dr. Stewart was followed by Dr. R. S. Rutherford, member of the same committee, with a paper on the action of some we'l known remedies.

Dr. Rutherford's experience leads him to believe that carbonate of ammonia does not possess a stimulant action sufficient to justify what has been claimed for it by authorities. Hence, where he once relied upon it and alcohol for stimulation in the crisis of pneumonia, he now resorts to a combination of the carbonate with tincture of nux vomica and tincture of digitalis, this for the reason that nux vomica stimulates the respiratory centres, supports the absorbent powers of the stomach when they flag, and in this way serves to prevent nausea and the accumulation of fluids which otherwise occurs, while the digitalis adds strength to the circulatory system.

Carbonate of ammonia he uses for two reasons: first, because it possesses in a small degree stimulant properties; second, to be able to say, provided counsel should be called, that he is giving carbonate of ammonia.

Dr. Rutherford's report was followed by one from Dr. N. Field, who would have every drug possessing poisonous properties excluded from the pharmacopœia *for the reason given!*

Some complications presented by other members of the Society on gynecological subjects, etc., were presented for consideration, which proved useful by consuming the time until the middle of the afternoon session.

Dr. M. F. Coomes, of Louisville, then read a paper entitled *Ophthalmic Aphorisms*, advocating the immediate removal of foreign bodies from the cornea, or any portion of the globe, if they be accessible. Especially should immediate surgical interference be made in cases of bodies lodged in

the cornea, as their presence, if long continued, gives rise to permanent injury to the structures by leaving a cicatricial opacity. If the lid be injured in such a manner as to cause a gaping wound, its edges should be opposed and retained by silk sutures, which may be permitted to remain from forty-eight to seventy-two hours, or until they cut out, if necessary.

In cases of wounds of the cornea, which allow the iris to protrude, the portion prolapsed should be removed, if it cannot be replaced by manipulation.

The sooner this be done, the better the chances will be for a speedy recovery, because retraction of the iris will occur more promptly than if it be left in this abnormal situation twelve or twenty-four hours. In performing the manipulation necessary to replace a prolapsed iris, the greatest care should be exercised, lest the lens or its capsule should be injured, in which event, cataract is almost certain to result. A small blunt probe, or an ordinary strabismus hook, is probably the most convenient instrument with which to do this.

When the globe is wounded to such an extent as to render it a question of doubt as to whether it should be removed, the following points may serve as a guide in determining the surgeon's proceedings:—

Should the globe have been evacuated of its contents to such a degree as to render it unfit for visual purposes, it is evident it should be removed within the first twelve hours after injury, for the reason that the effusion of lymph and consequent adhesions are not present at that early period, and the globe is also at this time less sensitive.

It matters not how severe the injury may be, if no foreign body has gained entrance into the globe, and the patient is able to distinguish light from darkness, removal of the eye should not be attempted. In such cases the treatment will be governed by the complications of the wound and its extent and location. If it be a wound of the cornea and the iris prolapse, cut it off, if attempts to return it have failed. If the wound should extend through the cornea and portions of the sclera, and at the same time be so extensive as to allow its edges to gape, it should be united by sutures, atropia dropped into the eye, and a cold compress applied.

In this connection a case was related as illustrative of the practice: J. H., aged twenty-three, single, bartender, in opening some mineral water bottles, broke one, a piece of which cut through the lower lid in the direction of the perpendicular axis of the lobe, entered the sclera about a line and a half from the inferior sclero-corneal junction, from which point an incised wound extended through the cornea and into the sclera, about two lines beyond the superior corneal junction. The scleral edges were opposed by sutures, the wound in the lid brought together in the same manner, atropia dropped into the eye and cold compresses applied. Three weeks after the injury was received the individual was able to distinguish colors, and at the present time (six weeks from date of injury) has a cataract nearly ready for removal. In cases where the rent in the cornea or sclera is small and unattended by hernia, atropia drops and a compress will be all that is necessary, until the wound is healed, when the bandage may be removed.

When a foreign body is lodged in the vitreous, and the fact is ascertained immediately after the injury, then is the most propitious time for its removal, or enucleation of the globe, as the pain and other unpleasant complications are thereby avoided. If it be ascertained that the body cannot be removed without destruction of the eye for visual purposes, enucleation is, probably, the best thing to be done.

If the body should be a piece of copper, or any of its alloys, its immediate removal, or enucleation of the globe is demanded. On the other hand, a small piece of steel may remain attached to the posterior surface of the lens, or its capsule, for a great length of time, three years, or more, without causing any disturbance beyond the production of cataract.

When the lachrymal sac becomes the seat of inflammation, followed by an accumulation of pus, it should be opened by slitting up the canaliculus, or at all events opened by making the cut directly down through the margin of the lid, for if it be opened on the face, it will result in lachrymal fistula, which will be difficult to cure; and even if this be accomplished, an unsightly scar will remain.

In the treatment of purulent conjunctivitis from whatever cause, the chief point is to keep the eyes perfectly clean, never allowing the secretions to accumulate beneath the lids. To accomplish this end, the eyes must be cleansed every twenty or thirty minutes with a solution of common salt, muriate of ammonia, bromide of potassium, or some similar agent, which has the power of dissolving the mucus and liberating the pus. The solutions mentioned may vary in strength from five grains to the ounce to a saturated solution. The parts having been freed from all accumulations, a mild astringent should be dropped into the eyes, such as weak solutions of alum, sulphate of copper, carbolic acid, tannic acid of from one to five grains of each to the ounce of water.

In the event of chemosis so great as to render it impossible to work the lids or open the eyes, the conjunctiva should be snipped in several places in order to allow the affected serum to escape. Should this fail to accomplish the desired end, viz., the necessary freedom of the lids, tarsoraphy should be performed, that is, the external canthus should be extended sufficiently to allow the pus to be washed from the conjunctival surface.

The three chief therapeutic agents in the treatment of iritis, are: atropia to relieve pain and prevent adhesions between the iris and lens or cornea; iodide of potassium internally as an absorbent and resolvent, with cantharidal collodion, or tincture iodine applied to the forehead as counter-irritants.

As a rule all cases of cataract occurring in persons under twenty-five years of age, may be removed by absorption, while extraction will be found necessary in all cases of senile cataract. Couching should not be practiced under any circumstances.

Care should be taken in discission not to make

too much of a rent in the lens, lest violent phakitis result.

The three leading features, as points of diagnosis in glaucoma, are abnormal tension of the globe, limitation of the visual field, and a cupped disc.

In glaucoma fulminans there is always severe pain in the eye, with unremitting headache.

Cases of glaucoma never recover without surgical aid. Iridectomy is the remedy.

Irido-cyclitis is usually chronic in character, frequently the result of syphilis or the sequela of some other disease, iritis or choroiditis. Medicines may palliate, but it is a question if anything but iridectomy insures permanent relief.

As a rule, cases of phlyctenular ophthalmia are dependent upon struma or malaria, or are rather to be considered as a sequel of these diseases. Hence, quinine and the iodides must be administered freely, if we would expect a speedy recovery. If the pain is severe, atropia should be applied locally. An ointment composed of ten grains of the yellow oxide of mercury and one ounce of glycer-amyl, will be found a very efficient local application. In most cases the nasal mucous membrane will be found in an irritable and diseased condition, which will be much benefited by the application of the ointment mentioned.

In cases of corneal ulceration, where perforation is apparently unavoidable, paracentesis should be performed without hesitation, because it can do no harm, and may save the eye from destruction. The puncture should be made in the deepest portion of the ulcer, and the needle or knife withdrawn slowly, so as to prevent a sudden evacuation of the aqueous humor. If the ulcer be near the periphery keep the pupil contracted, and if near the centre keep it dilated.

Following Dr. Coomes, came Dr. Joseph M. Mathews, who, owing to the fact that he had been selected to deliver a popular address in the evening, presented no paper, but made the following remarks on

Hints in Operating for Fistula in Ano.

Very much of the failure to cure rectal disease, I imagine, is due to wrong impressions as to the cause and nature of the same. Authorities have differed upon the subject of the pathology of fistula, even from the very first who wrote of the disease. Brodie taught that it always originated from ulceration of the gut, and that, therefore, there always existed an internal opening from the first. Syme taught that the mucous membrane was always intact at the beginning of the trouble, and only developed when suppuration existed. The fact is, that both men were wrong. A foreign body may be the starting cause of a fistula either from the inside of the rectum, or from without. There can exist internal openings without any ulceration of the mucous membrane.

In giving any "hints" on the operation for this trouble, I of course, mean to speak of patients who suffer from no special diathesis or other trouble, which might form a complication or contraindication to operation.

There are four methods of operating:—

1st. Injecting the sinus.

2d. The silk ligature.

3d. The elastic ligature.

4th. The knife.

I speak of the injection of the sinus as a mode, from the fact, that it is yet practiced by the empirics to a great extent. This is done, no doubt, to save the feelings of the patient, who may object to the use of the knife, caustic(?) or ligature.

In operating upon a recent fistula, where no induration of the tissues exists, I have no doubt but that some good can be done by employing injections of silver nitrate, iodine, etc., in the tract, especially if the condition be sluggish and shows no disposition to heal. To say that the adoption of it is advisable in fistula of any length of standing is simply folly. Irritation sufficient to close up the external opening might be excited, but this, in nine cases out of ten, is just what is not wanted. To effect this much is not curing the disease, and no surgeon will risk his reputation in this manner.

2. The use of the silk ligature is still in vogue, especially among the older members of the profession. It has its advantages, and in some cases we cannot afford to ignore its use. In cases where any special diathesis exists, say scrofulosis, or tuberculosis, and the use of the knife is contraindicated for fear of incontinence, hemorrhage, pain, etc., this can be said to be a very proper, if not satisfactory mode of operation. Patients dread the use of the knife. This mode overcomes their objections, and is comparatively free from pain; another advantage being that they can be kept out of bed and at their usual avocations. The method of applying it is simple, it being simply to thread a small flexible probe, pass it through the external opening into the bowel, thence out at the anus, and tie a little firmly, but not tight. It is re-tied every few days, according to circumstances. If only one sinus exist, a cure may be effected. If the disease has existed for any length of time, or the tract be callous, the operation will be ineffectual.

3. The elastic ligature is highly lauded by some, but to say that it can be successfully used indiscriminately, and that to the exclusion of the knife, is saying something that cannot be supported by facts. This mode of operating has its advantages, yet it has likewise its disadvantages. To state briefly, its advantages are, viz.: It does away with the horror of the knife; it is not attended by hemorrhage: it can be used sometimes without chloroform; it causes less pain, if not drawn tightly, and the patient can usually go about during the treatment. Its disadvantages are, if the sinus is callous it will not cure the disease; if according to all authorities the ligature is drawn tightly the pain is intense, it delays the cure very many days, from the fact that it takes from eight days to three weeks to cut out; if the disease has existed for any length of time its use is contraindicated.

4. The knife is undoubtedly to be preferred to all other methods in the great majority of cases. No surgeon should succumb to the whims of his patients, if in so doing he violates his own judgment. Therefore a patient should never be allowed to dictate an operation or how to perform it. The great majority of cases of fistula in ano are not seen until after they have existed for

some time. We all know that if this be true the great majority of them have callous tracts.

If you use injections you only close up the external opening. If you use the ligature, either silk or elastic, you cut through the top and not the bottom, which it is your duty to do, the consequence being, that you do no good, the sinus opening again in a little time. If you use the knife, you cut through both the top and bottom of the sinus and you cure your patients. If other sinuses exist beside the main one, you lay them all open and the patient gets well. If you use the ligature, you cannot see the sinuses and your patient does not get well. If you use the knife and the edges of the wound need trimming, you can trim them. If you use the ligature no such opportunity is afforded. The old authorities used to talk about cutting out a fistula. The laity have such an impression now, and I tell you, gentlemen, there is more good surgery than poetry in the idea. The more you cut these patients the better they do, and if I could not get rid of a callous sinus any other way, I would not hesitate to cut it out.

As to the employment of chloroform in operating, I would say, that I prefer to use it in most cases, for the reason, not only that it relieves the patient from the pain, but also because it permits the operator to cut as much as he sees proper.

NORTHERN MEDICAL SOCIETY, PHILADELPHIA.

Dr. E. R. Stone read a paper upon

The Management of the Perineum in Labor.

(*See page* 617.)

Dr. Montgomery commended the completeness of the paper, and said every obstetrician should go to attend every case of labor prepared to sew up the perineum should it rupture.

The discrepancy in the statistics given by different physicians regarding the relative frequency of its occurrence, he believed to be due to the lack of a thorough examination after labor, as the perineal body might be badly lacerated, while the exterior skin remained intact, or nearly so.

He gave as predisposing causes, the position of the vulvar orifice, fatty degeneration of the perineal body, and rupture of the os uteri, followed by sudden impinging of the head. He thinks the forceps increase the amount of stretching required for the passage of the head, and, therefore, recommends their removal, especially in primipara, before its delivery, when, with two fingers in the rectum, the head could be pressed forward without this increase.

He is not in the habit of incising the labia, believing that the posterior wound will heal easier than the two lateral ones.

After rupture had taken place, he would use serrefines for uniting the parts, if the rent was superficial only; if deeper, the ordinary sutures, placing them at once, as the pain of introducing them is then less than at any later time.

Union always takes place unless puerperal inflammation follows. He uses hot water to control the hemorrhage, had the bowels moved daily, and did *not* use the catheter.

Dr. Oliver had seen one case in which the sutures were removed on the second day, on account of puerperal peritonitis.

After recovery of the patient, he was surprised to find the perineal wound healed.

Dr. Updegrove had very few cases of rupture. Inquired the proportion of cases in which the forceps had been used.

Dr. Campbell had ruptured the perineum twice by instruments. The first was a case requiring great haste in delivery, because of the presence of convulsions. The second was the result of a monstrous head; all his other cases of rupture took place without instrumental assistance. He thought the forceps a help in preventing the accident.

Dr. Walker said his experience did not agree with the common statement, that the accident was confined to the wealthier classes with weak muscles; his worst case was in the person of a danseuse, who had a most unusual muscular development of these parts.

He believed the most frequent cause of rupture was the too early extension of the chin before the vertex was fully born. He places two fingers in the rectum, and keeping the chin flexed, carries the whole head forward, until the neck is well under the arch of the pubes, thus changing the diameter as it passes the vulva from five to three and a half inches. He has never incised the labia.

Dr. McDowell usually places the finger in the rectum at this stage of labor, and then with the other hand on the occiput forces it down and to one side. He also gives the same motion to the shoulders as they pass.

He believes that the position of the woman has much to do in producing this rupture. The easiest position for the woman, and the one least liable to this accident was that of kneeling, although that necessitated a constrained and tiresome position for the doctor.

The nicking of the labia he believed to be a valuable operation, and one in which he had a very large experience. He now made the incision low down, just at the edge of the perineal body. He incised the mucous membrane only, and found that a very small nick was all that is necessary.

It is best done by scissors or a dull knife. He had never had any troublesome hemorrhages or difficulty following the operation.

Dr. Stone, in reply to Dr. Updegrove said, that a majority of his cases were instrumental labors, but that the rupture was not due to the forceps, since they had been removed before the passage of the head over the perineum.

He believed that the usual cause was the extreme bearing down of the woman at the time; and since this was chiefly a reflex act, and beyond her control, our only remedy was in the use of ether.

In reply to Dr. Walker he did not believe that extension could take place before the vertex had completely passed from under the pubes.

—"Are you feeling very ill? let me see your tongue, please." It's no use, doctor; no tongue can tell how bad I feel."—*Boston Transcript.*

EDITORIAL DEPARTMENT.

PERISCOPE.

The Chinese Opium Pipe as a Therapeutic Agent.

In an exhaustive article on this subject, published in the *Medical Record*, November 5th, 1881, Dr. H. H. Kane, of New York, points out the following advantages, which smoking offers over other methods of using the drug:—

First.—It takes longer to form the habit.

Second.—It works less harm when once formed.

Third.—It is easier to break.

Fourth.—A local as well as a general effect may be obtained.

Says he, further on:—

It would be especially suited to that class of pulmonary affections where a topical as well as a general action was desired. In numerous experiments, I have found it of the greatest benefit: in the insomnia of phthisis due to a frequent, irritative cough; in spasmodic asthma; and the asthmatic symptoms of emphysema and chronic pneumonia. Not only does it check the cough, but it permits of sleep in the recumbent posture, a thing that, before its use, had, in some cases, been impossible for months.

Over the other methods of using the drug it has the advantage of requiring long smoking to form a habit, and the least physical harm when the habit is formed. In many cases of phthisis, it would make but little difference whether a habit was formed or not, as the patient is certain to die, and nothing so thoroughly smooths the path to the grave as opium. In other cases, its occasional use, especially if the patient did not know what he was smoking, would not produce any morbid craving for the drug.

The trial of the opium-pipe in the wards of one of our large hospitals would probably give some very decided results; not only in pulmonary, but in cardiac and other affections.

In catarrhal inflammation, opium-smoking would be especially indicated, as it is a well-known fact among smokers, that gleet, gonorrhœa, leucorrhœa, and nasal catarrh rapidly disappear in the smoker. Furthermore, this is about the only way of using opium alone that creates (to the novice) nausea, profuse perspiration, and decided relaxation; an effect that is reached but imperfectly by Dover's powder.

I know of one case of malarial neurosis of the heart, that has been seen by Professors Loomis, Clark, and Janeway of this city, and Walsh of London, where the daily smoking of a few pipefuls of opium was the only way of using it that would control the palpitation and pain. Morphine and opium by the mouth or rectum produced constipation, loss of appetite, gloom, and despondency, all of which disappeared after he abandoned them for the pipe.

There are those who will perhaps look upon the course I am taking in this matter as opposed to that which I have written before, and censure me for trying to introduce, as a therapeutic measure, a new plan of using a drug that already numbers its slaves by thousands. In anticipation of such censure, I can only say, that opium will be used in medicine so long as medicine is practiced, and if we can bring forward a manner of using the drug that shall offer the following advantages, we are doing a real service to humanity:—

First.—Maximum result from a minimum amount.

Second.—Rapidity of action.

Third.—Advantages of local effect.

Fourth.—Least physical, mental and moral ill-effect from continued use.

Fifth.—Greatest difficulty in forming a habit when properly used.

Sixth.—Comparative ease with which the habit is broken.

The rapid spread of the habitual use of morphia hypodermically, has been due to the placing of syringes in the hands of patients. If the physician will conceal the name of the drug he is using in the pipe, and administer it himself to the patient, there is but little danger of the formation of a habit.

Finally, other drugs (their aqueous extract), may be combined in definite amount with the opium, and also used for inhalation.

Nerve Stretching in Lateral Sclerosis.

We take the following case from a recent number of the *Lancet*. It is reported from the Manchester Royal Infirmary:—

John H., aged thirty-six years, was admitted July, 1880, under the care of Dr. Morgan, suffering from well marked symptoms of lateral sclerosis. The patient presented the characteristic spastic gait; the patellar reflex and ankle-clonus were much exaggerated. The muscles of the thighs (more especially the abductors), and also those of the legs, were rigid and contracted and their reflex activity was readily excited. There was no atrophy, nor loss of sensation, but he complained of severe pains in the abdomen and both lower extremities, which were especially worse at night, and could not be relieved by morphia or other means.

At Dr. Morgan's suggestion, and with the object of affording relief from the shooting pains in the limbs, the left sciatic nerve was exposed and stretched by M. Southam, on July, 13th, 1881, just below the spot at which it emerges from beneath the lower border of the gluteus maximus, sufficient force being employed to raise the limb from the horizontal position, and traction being also made in both an upward and downward direction, so as to bodily move the patient upon the operating table.

Immediately after stretching the nerve, the patellar-reflex and ankle-clonus completely disappeared in the limb operated upon. The operation was not followed by any apparent loss of sensibility, but the spastic contraction of the muscles of the left thigh and leg was somewhat diminished, as proved by the fact that flexion

and extension of the limb were considerably freer than before its performance. On the second day after the operation the shooting pains in the abdomen and both lower limbs suddenly ceased, and the same evening he passed the first night free from pain for twelve months. In the course of a fortnight ankle-clonus and patellar reflex began gradually to reappear, and soon re-asserted themselves with almost all their former intensity. Six weeks later there had been no return of the attacks of pain; the movements of the left limb were still much freer than those of the opposite side, and the patient expressed great satisfaction at the relief the operation afforded him.

Compensation and the Vis Medicatrix in Disease.

On these two related subjects, Dr. R. Douglas Powell, of London, has some excellent observations in a recent introductory lecture. We quote them from the London *Med. Times and Gazette:*—

We must look to *compensation* as a great principle in the natural history of disease. Compensatory function is the *modus vivendi* in chronic disease. It is a subject upon which, again, our text-books are curiously silent. All the knowledge you will gain of it will be gathered in the wards and the out-patient room. Here, for instance, you will see a man walking about the ward or attending the out-patient room with apparently but little the matter with him; he is very well on level ground, but is short-breathed on exertion. There is another patient propped up in bed gasping for breath, with dropsical limbs and engorged viscera. Yet these two people have precisely the same form of valvular heart disease, but in the one case the heart muscle has gained power to maintain the circulation, notwithstanding its disabled valve; in the other case this compensatory power has not yet been established. In another case, again, it perhaps never will be established. This is but one illustration of compensation in chronic disease. You may observe the same principle at work in case after case, and in every region and system of the body. The *vicarious* principle by which one set of organs will temporarily bear the burdens of another, is well recognized in medicine; you will see frequent illustrations of it in the wards. I do not wish you to study these phenomena merely for the satisfaction they will afford you, nor as intellectual exercises or matters of purely scientific interest, but because of their direct practical bearings upon the treatment of disease. They are the essential conditions of life to thousands of people, and to start, to stimulate, and to maintain them in chronic illness are the grand objects of our art, in attaining which some of the most brilliant triumphs of therapeutics are achieved. Nor can an accurate opinion as to the future of any chronic illness be formed without taking into account what may be effected by reparative or compensatory processes or by vicarious function in restoring a working equilibrium. These constitute our wealth of vitality. Two men may stand side by side with the same disease, yet the one is bankrupt of resource, while the other has a heavy constitutional balance in his favor.

A full recognition of the *vis medicatrix naturæ* does not warrant, as it has been held to do, an expectant or handfolded treatment of disease. Let us keenly scan the ways and means of Nature, as they are manifested to us in healthy and diseased processes, and we cannot fail to find abundant room for the resources of art to aid, to direct, and to control her doings; and it is pardonable in us at least to conceive that the science of medicine has been instituted, in the Divine order of things, thus to assist and to control Nature. There is little fear that those who have well studied the natural history of disease will be meddlesome in therapeutics; they will understand and leave much to the *vis medicatrix naturæ*, but they cannot fail to have observed that this same *vis medicatrix* plays sad havoc with us sometimes. People would not infrequently be choked or starved by Nature's attempts at repair, were it not for timely surgical interference. Well-nigh all the graver forms of valvular heart disease are due, not so much to the original lesion, as to the after-attempts (Nature's attempts), at repair by cicatricial processes. The surgeon frequently suffers the greatest embarrassment from Nature's determined efforts to heal in the wrong place. Modern research has discovered that we are beset on all sides by pernicious agents, against whose insidious attacks Nature, unaided, is often powerless; but Art steps in, and our Pharmacopœia has of late years bristled with antiseptics and germicides. In short, you will find in practice but few cases in medicine or surgery in which you can with a clear conscience stand aside and say there is nothing to be done. You may sometimes cure those that without your aid would die; you may always relieve suffering when present, and in hopeless cases you may prolong life and strip death of some of its terrors.

Stomach Wounds.

Dr. A. Dunlap, of Springfield, Ohio, communicates the following interesting and instructive case to the *Medical Record*, Oct. 22d, 1881:—

In 1869 I had a case which exhibited the wonderful tolerance with which the peritoneal cavity bears wounds. I was called to a young man, aged twenty, robust constitution and uninterrupted good health. He had fallen with his stomach on a rapidly revolving shaft, just where it was fastened by a half-inch iron bolt, the bolt projecting about an inch. His clothing caught and held him tightly against it, while the revolving bolt cut the wall of the abdomen and the stomach, drawing the latter out of the cavity, and making a wound five inches long in the wall, and four and one-half inches in the stomach. It occurred just after he had eaten a hearty meal. I saw him about an hour after the accident. There was no appearance of shock in his pulse, nor of pain in his countenance. The stomach was partly drawn out of the wound, also a very considerable portion of the left lobe of the liver. The former was partially emptied of its contents, but none had entered the abdominal cavity; the food that remained was just as he had eaten it. The bleeding had entirely ceased, and there was trickling from the rent in the organ a perfectly clear fluid. In about another hour I had a physician (and chloroform) to assist me in dressing the wound.

After giving him chloroform, I took the stomach up, in order to empty it completely, but the chloroform sickened him, and he began to make efforts to vomit. I could feel the vermicular motion of the stomach as I held it, the pyloric orifice approaching toward the cardiac. The muscular contractions gaped the wound, and the pyloric orifice was forced out until it came plainly to view, the stomach being almost completely turned wrong side out. After several efforts at vomiting, the contents of the duodenum began to come in jets. It was of that dark, bilious color which we see in vomiting from an empty stomach. After the vomiting ceased, I cleansed the stomach, and accurately stitched the edges of the wound in that organ to the edges of the peritoneum of the wound in the wall of the abdomen, by closely applied interrupted sutures, and then closed the wound. He came from under the chloroform without any appreciable shock. For thirteen days the pulse never rose above ninety, and only a slight increase in temperature. There was no pain or tenderness over the abdomen. The peritoneum united rapidly, and the stitches came away, and left a healthy granulated surface. But the patient was rapidly weakening. The food taken was sufficient to nourish him, and was digested, as I could see it through the large opening remaining in the walls; but it was forced out through this gap by the action of the stomach, and not down into the duodenum.

He remained bright and cheerful with all these symptoms, till the thirteenth day, when he had a large watery stool. His pulse immediately rose from 90 to 120, and then to 140. In six hours he had another evacuation, and in a few minutes died in collapse. His friends refused a post-mortem examination. The man certainly did not die from inflammatory action, but from rapid exhaustion and the collapse caused by the large watery stool. The extensive surface of the stomach that had become adherent to the walls of the abdomen prevented the vermicular motion from passing the nourishment into the duodenum.

Heat Dyspnœa.

Several physiologists have lately turned their attention to the interesting phenomenon known as "heat" or thermal dyspnœa, and a *résumé* of the results obtained, is given in a late number of the *Revue Scientifique*. It is well known that when the temperature of the blood increases the respiratory rhythm becomes more frequent, dyspnœa supervenes, and those phenomena are observed which are properly attributable to exaltation of temperature. The interesting question arises: Where are the points of attack for the increased temperature? Does it act on the cerebral convolutions primarily, and through these on the respiratory centres, or does it act on the skin first, or on the pulmonary endings of the vagus first, or, finally, does it act directly on the nerve-centres which govern the respiratory movements? Goldstein believes he has proved that increased temperature does not act by way of the skin, because in a heated animal cold affusions do not at once destroy its effects; that it does not act through the cerebrum, or owing to any feeling of uneasiness on the part of the animal, because it is not prevented by morphia injected into the veins; that it does not act by the pulmonary expansion of the vagi, because it is not prevented by their section; but he endeavored to show that it is occasioned by the direct action of heated blood on the respiratory nerve-centres, by employing a method of increasing the temperature of the blood without exciting the sensory nerves at their periphery. This method consisted in exposing the carotid of a rabbit, and without otherwise distributing the circulation through it, surrounding it with hot water, which of course heated the blood passing to the brain and medulla oblongata. Goldstein came to the conclusion that as heat dyspnœa then set in, it was clearly due to the action of the warm blood upon the respiratory nerve centres. M. Gad, with M. Mertchinsky, have made a series of experiments on rabbits in this mode, and on registering by means of a pneumograph, it was found that about thirty seconds after the heating of the carotidean blood the respiratory rhythm became four or five times more frequent, and ten seconds later heat dyspnœa was fully established. The same result was obtained by another experimenter, and in an article in M. Foster's *Journal of Physiology*, contributed by M. Sihler, that observer considered that it was attributable partly to pain, and partly to an increase in the amount of carbonic acid contained in the blood, and to the augmented molecular changes naturally consequent on an elevated temperature. But this conclusion is disputed by the most recent experimenters, Mertchinsky and Gad, on the ground that the type of the thermic dyspnœa differs from that of asphyctic dyspnœa. In heat dyspnœa respiration is short and shallow, while in asphyctic dyspnœa it is deep. According to Mertchinsky, moderate doses of chloral do not modify thermic dyspnœa, while toxic doses almost entirely prevent it from supervening, or at least cause it to appear at a much later period and in a much less marked form. The section of the two pneumogastrics was without effect. Section of the fifth pair did not prevent it occurring, but it was much less distinctly marked. Hence, he concludes that it is not a reflex action consecutive to excitation of the sensory nerves of the face by heat. Moreover, the respiratory excitement is observed in as distinct a form after ablation of the encephalon as before. Hence Mertchinsky maintains that the type and rhythm of the respiratory acts depend on the temperature of the inspiratory nerve centres situated in the medulla oblongata.

Amputation of Breast and Antiseptic Dressing.

The following interesting case and remarks are given in the London *Medical Times and Gazette*, from the University College Hospital, under the care of Mr. Christopher Heath.

E. B., aged sixty-five, a laundress, single, noticed a small, very movable swelling in left breast six months ago. There was a pricking and shooting pain in it; and she had lost a good deal of flesh since its appearance. There was no family history of tumor, the patient's mother and father having each died at eighty.

On admission there was a firm mass in the

upper and outer part of left breast, freely movable over the great pectoral. It sent a short process upward, along the anterior axillary fold, and just here the skin was involved for about one inch square. There was tenderness, but no enlarged gland, in the axilla. Above the clavicle a small movable gland could be felt, but it was not tender. The patient looked healthy, but her skin hung loosely.

Considering the patient's age, Mr. Heath decided to remove only the new growth; and this he did by semilunar incisions parallel to the anterior axillary fold. The wound was washed out with chloride of zinc (forty grains to the ounce), drained by a tube brought out in the axilla, and the edges were approximated by stout wire sutures. Lint steeped in carbolic oil was placed next the wound, and a thick pad of salicylic wool was secured over this by a bandage.

Free discharge rendered it necessary to change the dressings the same evening, and again on the following morning. The patient felt well, and her morning temperature remained normal until the fifth day, when it rose to 100°, pulse to 120; at the same time patient felt ill, and a patch of cutaneous eruption spread from wound some distance down the back. Next morning the temperature was normal, and in four days the blush had disappeared.

On the seventh evening sharp hemorrhage occurred, and was arrested by douching with iced water and pressure over a sponge. The temperature two hours later was found to be 102.8°, but on the following morning it was again normal. On the tenth day slight hemorrhage into the dressings was found, but on the eleventh day such free bleeding occurred that it was necessary to open up the wound and turn out a mass of clot. A small artery was then seen spouting, but it stopped before a pair of forceps was obtained. There was no union at this time, and the surface of the wound became very sloughy. By the eighteenth day it was granulating well; but healing was very slow, and when she was discharged on the fiftieth day a small granulating patch remained. The temperature at the period when hemorrhage occurred was often subnormal—95° to 97°,—but after this it was only twice 100°.

The patient remains well, and there is no recurrence.

General Results.—Of twenty cases of amputation of the whole breast, often with removal of glands and muscle, nine were treated antiseptically throughout; all were discharged healed, or almost so, in periods varying from eight to thirty-five days—twenty-two on the average. Eight were treated antiseptically—some with, some without the spray—but the dressings became septic within the first week. Of these three died—one of erysipelas and pyæmia; one (a stout woman of fifty) apparently from cardiac syncope; one from asthenia, due to erysipelas and secondary deposits in liver; one never healed, from recurrence, and the others were slow in doing so; but two were very fat women. The average temperature was much higher than in first series. Two were dressed with salicylic wool; one died of acute septicæmia, the other recovered well; one was dressed with cotton-wool, and died of septicæmia.

On the Treatment of Empyema.

The Cincinnati *Lancet and Clinic*, October 15, 1881, contains the following article on this subject, by Dr. E. F. Wells, Minster, Ohio:—

The healing of an empyema is effected by the evacuation of the pent-up pus and the adhesion of the opposed surfaces of the altered pleural membrane. This is usually a tedious process, and it sometimes happens that a small cavity at the bottom of the pleural sac remains, which obstinately refuses to heal. To this cavity a sinus leads, and the discharge of pus may be free, but the lung cannot fully expand, because of the firm adhesions or because of its altered texture; the ribs do not sufficiently contract; or there may not be enough inflammatory products deposited in the walls of the pus cavity to cause its obliteration. If the walls of the purulent cavity are approximated they usually quickly adhere, but it is self evident that they cannot do so if widely separated.

In the treatment of this condition I have had excellent results from the use of a snugly fitting abdominal bandage, fitted so as to hold the abdominal viscera up against the diaphragm and the pus cavity. If the pressure is sufficient and continuous it will, in all probability, obliterate the empyemic cavity, bring together its walls and cause adhesion. The bandage is to be worn continually. In addition, the patient, if old enough, is directed to practice forced inspiration at frequent intervals. If the patient is too young to practice forced inspiration it should be made to cry occasionally. By forced inspiration the adhesions which prevent the lung from expanding are stretched or perhaps torn, and by liberating the portion of lung then bound down, may effect a good purpose.

These means are intended to be supplementary to those ordinarily used, such as maintaining a free vent for the secretions, injections for cleansing purposes or for the purpose of stimulating languid surfaces, etc. Into this field I do not desire now to enter, wishing only to call attention to the use of the abdominal bandage and forced inspiration in certain cases of empyema not otherwise amenable to treatment; and if perchance the procedure be new, I can only say that it will fulfill every anticipation that may be entertained of its usefulness; and if it be as old as the art of medicine itself it is a strange example of the mutability of the thoughts and ideas of men that a measure of such value should be so far forgotten as to find no place in the medical literature of to day.

A Case Illustrating the Identity of Croup and Diphtheria.

Under this heading Dr. T. F. Pearse reports the following in the *British Medical Journal*:—

In August last, a boy six years old returned to his home in the country, from having been to the Moorfields Ophthalmic Hospital and undergone an operation for traumatic cataract. About a week later he complained of sore throat, and his mother states that he was ill and troubled with it for over a week. About ten days after his return from London his eldest sister was attacked; and a few days after the commencement

of her illness, the mother, another son, and the baby were seized with it. The baby was a sickly, delicate child at the time, suffering from acute eczema of the head and neck. For two days, however, it became very ill, and could not be got to swallow. The throat was reddened and swollen, but there was no false membrane to be seen. After two or three convulsive fits, it died quietly. The other sick members of the family, viz., the mother, eldest daughter, and one son, were all feeling ill, and complained of their throats; but besides swelling and redness of the tonsils and palate, there was nothing suspicious to be seen. A day or two after the baby died, however, the boy, who was at the time ill in bed, became much worse, and false membrane of an unmistakable type appeared on the uvula, palate and tonsils. Shortly after this, another son was taken ill, but with only the sign of ordinary sore throat. Up to this time the only remaining member of the family (besides the husband) who had not been ill, was a little boy aged three years. About a week after the baby's death, however, he was said to be poorly and complained of his throat. His symptoms gradually developed; he became hoarse, coughed a little, lost his appetite, and his mother said he seemed at times as if he was going to be choked. There was no membrane visible from the mouth, the throat being merely red and swollen. The child, however, when asleep, breathed noisily, as if there was some obstruction in the larynx. The mother stated he awoke during his sleep, had fits of coughing, with a "croupy" noise, and great difficulty to get his breath. He was rather better during the day. The case of this last child corresponds exactly with the disease so-called "croup," whereas that of the other child—his elder brother—exactly corresponds with the ordinary form of diphtheria. The family, although not strong, have previously been in good health. These cases seem all to have occurred through the illness of the boy brought from London. There has been no other case of diphtheria in the neighborhood. In only one case has actual membrane been discovered; but the prostration, swelling of the glands of the neck, and other symptoms of diphtheria, have been very marked. The boy with so-called "croup" is just the age at which this disease occurs; the others may be said to be too old for "croup."

Reviews and Book Notices

NOTES ON CURRENT MEDICAL LITERATURE.

—Among recent monographs are:—

A reprint from the Gynecological Transactions, containing a paper by Dr. A. Reeves Jackson, on Uterine Massage as a Means of Treating Certain Forms of Enlargement of the Womb.

A reprint from the *Archives of Opthalmology* for Sept., 1881, on Ophthalmological Anomalies, by Dr. P. D. Keyser, of Philadelphia.

A reprint from the *Transactions of the New York Academy of Medicine*, containing a description, by Dr. Louis Elsberg, of New York, of an apparatus called the Galvanic Accumulator, for storing dynamical electricity for cautery and illuminating purposes.

An address delivered by Prof. A. Jacobi, in the lecture-room of the College of Physicians and Surgeons, New York, Oct. 3d, 1881, introductory to the course of lectures of the term 1881–82, the subject being *Rudolph Virchow*. This comes to us in a reprint from the *Medical Record*, Oct. 22d, 1881.

An introductory address delivered before the students of the Chicago Medical College, at the opening of the session of 1881–82, by Prof. E. O. F. Roler.

BOOK NOTICES.

Artificial Anæsthesia and Anæsthetics. By Henry M. Lyman, A.M., M.D., Professor of Physiology and Diseases of the Nervous System in Rush Medical College, and Professor of Theory and Practice of Medicine in the Woman's Medical College, Chicago, Ill. Cloth. 8vo. pp. 338.

A Treatise on Food and Dietetics, Physiologically and Therapeutically considered. By F. W. Pavy, M.D., F.R.S., Fellow of the Royal College of Physicians; Physician to, and Lecturer on Physiology at, Guy's Hospital. Second Edition. Cloth. 8vo. pp. 402.

The above are the titles for September and October, respectively, of Wood's Library of Standard Medical Authors, published by William Wood & Company, 27 Great Jones street, N. Y.

Prof. Lyman's work may be regarded as a systematic compilation, or rather a digest of all that has heretofore been written on the subject of anæsthesia. The book opens with a very interesting chapter on the history of anæsthesia, from the time of Noah (might he not just as well have gone a few centuries further back, to the time when the first important operation was performed on an anæsthetized subject in Paradise?) until the end of the first half of the nineteenth century, when the value of anæsthetics in surgery had become an established fact. The author refers to numerous authorities, proving that the ancients were familiar with drugs possessing anæsthetic properties, and that these were occasionally made use of for the same purposes that they are to-day. The phenomena of anæsthesia are next described and its physiology discussed. Then follow chapters on the administration of anæsthetics, method of producing anæsthesia, ether inhalers, nitrous oxide inhalers, accidents of anæsthesia and their treatment, anæsthetic mixtures, artificial anæsthesia in obstetric practice and in dentistry, local anæsthesia, mortality of anæs-

thesia, medico-legal relations of anæsthesia, etc. Considerable more than two-thirds of the volume is taken up with descriptions of the various anæsthetic substances, their nature, comparative safety, etc. The author writes in a very pleasant, we might say fascinating style, and we believe this to be the most complete monograph on this subject in existence.

Dr. Pavy's treatise on food and dietetics is likewise a work of rare interest, treating as it does of a subject so intimately connected with our physical well being. In his introductory remarks on dynamic relations of food, the author paves the way for the intelligent comprehension of the succeeding chapters, in which *food* is treated of under the following headings: On the "Origination of Food"; the "Constituent Elements of Food"; "Alimentary Principles"; "Alimentary Substances"; the "Preservation of Food"; "Principles of Dietetics"; "Practical Dietetics"; "Therapeutic Dietetics," and "Hospital Dietetics." Under alimentary substances he includes all kinds of beverages, which are treated of in full, and under practical dietetics he quotes from the writings of travelers, showing the varieties of diet consumed by different nations; these extracts are extremely interesting. The work being the only one of its kind in the English language that we know of, and being in reality a scientific treatise, carefully written and full of valuable information, we heartily recommend it to physicians and students of hygiene.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland, at its Eighty-third Annual Session, held at Baltimore, Md., April, 1881. pp. 398.

The subject of the address of the president, Dr. H. P. C. Wilson, of Baltimore, was "Some of the Claims which the Medical and Chirurgical Faculty has on the whole Medical Profession of Maryland, as well as on its Members." He spoke of the past and present of the Faculty, and urged the importance of the establishment of a complete library for the use of its members. His address was eloquent and replete with poetical quotations. Dr. William Goodell, of this city, delivered an address on "The Dangers and the Duty of the Hour," which we have already referred to elsewhere. Besides the reports of the various sections, which occupy a little more than one-fourth of the volume, and comprise several valuable papers, three papers were read by invitation. The first of these was by Prof. H. Newell Martin, of the Johns Hopkins University, on "A New Method of Studying the Mammalian Heart;" the second was by the same author, and Dr. W. T. Sedgwick, the subject being "A Study of Blood Pressure in the Coronary Arteries of the Mammalian Heart;" the third paper was on "A Fatal Form of Septicæmia in the Rabbit, produced by the Subcutaneous Injection of the Human Saliva," by Geo. M. Sternberg, Surgeon U. S. A. Among the volunteer papers, we notice some of considerable interest, to which we shall have occasion to refer hereafter. The latter part of the volume contains an account of the *Celebration of the Medical and Chirurgical Faculty, held in Honor of the Sesqui-Centennial Anniversary of the Founding of Baltimore*, at the Hall of Faculty, October 13th, 1880. The principal addresses were by Dr. G. Lane Taneyhill, who gave a Historical Sketch of the Medical Societies of Baltimore from 1730 to 1880; "Medical Journalism in Maryland" by Dr. T. A. Ashby, Editor of the *Maryland Medical Journal;* and the "Medical Schools of Baltimore" by Dr. Eugene F. Cordell.

The Physician's Visiting List for 1882. Philadelphia: Lindsay & Blakiston. Price $1.25.

This visiting list, having now reached the thirty-first year of its publication, is so well known to the profession that little need be said here of its merit. It is arranged for fifty patients per week, and contains the usual blank pages for monthly memoranda, addresses of patients and others; nurses and their references; accounts asked for; memoranda of wants; obstetric engagements; vaccination engagements; records of births and deaths, etc. Also an almanac for 1882; table of signs; Marshall Hall's ready method in asphyxia, poisons and antidotes; the metric or French decimal system of weights and measures; posological table, and table for calculating the period of utero-gestation.

The Medical Record Visiting List, or Physician's Diary, for 1882. New York: William Wood & Co. Price, for thirty patients, $1.25; for sixty patients, $2.00.

This visiting list is handsomely bound in red and green leather with gilt edge leaves, and contains tables of comparison of English with metric weights and measures, and of Centigrade and Fahrenheit thermometric scales; table of signs; almanac; table for estimating the probable duration of pregnancy; approximate equivalents of small weights; doses of drugs for subcutaneous injection; doses of common and rare drugs; drugs suited for atomization and inhalation with doses; disinfectants, urine analysis; poisons and their antidotes; emergencies; facts; Lister's antiseptic solutions; treatment of asphyxia from various causes, in addition to the usual blank leaves for records of all kinds. It is most admirably arranged and elegant in appearance.

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FORM AND COLOR IN EVOLUTION.

Now that æsthetics are ruling the day, and the pursuit of the beautiful is coming to be looked upon as one of the properest employments of life, it is well to consider the æsthetic sense from a broadly physiological point of view. Within the last score of years it has, in fact, come to be accepted as one of the most potent influences in modifying organic nature throughout nearly all its realms. With the Darwinian doctrine of evolution was introduced the theory of sexual selection as one of the powerful modifiers of organic form. The stronger sex in each species chose mates from the other sex, according to the prevailing notion of the beautiful; the brilliant plumage of birds, the pied and spotted skins of animals, the gay decoration of the butterfly, even the vivid and varied hues of the flowers, can generally be traced to the exercise of selection, based upon preference or admiration. So also symmetry of form and grace of carriage have been preserved, while deformity and awkwardness have fallen away in the general race for the beautiful.

Confining the range of our observation to man, although we find the ideals of beauty differing vastly in different communities, yet everywhere this ideal shows itself powerful in influencing the choice of mates, and thus in deciding the perpetuation and vitality of the stock. The relation is unquestionable. Were there a community where rickety and deformed women were particularly sought after, either the community itself would perish in a few generations, or its poorest and weakest members, who were obliged to take as spouses the rejected strong and healthy women, would outlive the upper classes and come into possession of the ruling power, and thus reverse the false and injurious ideal which had been established.

In higher matters, there is no doubt but that the prevailing tone of mind reacts directly on the features, and still more positively do the amount and quality of nutrition. The "cat's eye" countenance found on some of the Archaic Greek sculptures is believed, by some anthropologists, to have been acquired by the habit of looking eagerly at the bones, etc., which were being gnawed by the teeth! This appears overdrawn, but certainly the prognathic skull of older types, which is also still found in certain African tribes, indicates the predominance of the struggle merely for food. The coarse mouth and jaw so common among the lower order of Irish peasantry is the result of an insufficient diet for many generations. In this country, where food is abundant, it often disappears in two or three generations, even in Irish families of unmixed blood.

Although occasional exceptions are noted, the general rule that low tastes and mean associations stamp an indelible imprint on the face, holds good. One has but to go through the "rogues' gallery," kept at the police headquarters of our large cities, containing the photographs of the numerous distinguished rascals of the day, to be convinced of this fact. As is well said by Shakespeare:—

"In many's looks, the false heart's history
Is writ in moods, and frowns, and wrinkles strange."

There are few persons of violent and uncontrollable passions, or of base habits, who do not wear the fact blazoned on their faces, patent to the eye of all accustomed to study the lineaments and their relations to the emotions.

Even complexion and color are said to be affected by mental habits. In India, the higher classes approach nearer the normal white Aryan race. The color is not only an index, it is said by some ethnologists to be a consequence of mental development. Pure blacks, educated through several generations, lose several shades of their primitive hue. It is not an accident, or mere coincidence, that the white race is the most enlightened; it is believed by some that the higher forms of mental activity act directly through inhibitory nervous force on the deposition of coloring matter in the epidermal cells. The question is a curious one, and deserves more thorough investigation than it has received.

Notes and Comments.

Anatomical Anomalies.

Dr. J. G. Wiltshire, of Baltimore, mentions, in the *Maryland Medical Journal*, the occurrence, in a colored subject of fine physique, of a peculiar series of anomalies in the position of the heart and the arrangement of some of the arteries. The heart was found on the right side, with its base at the proper level, corresponding with the upper borders of the third costal cartilages, with its apex pointing to the right, resting on the diaphragm at a space between the fifth and sixth ribs. It was normal in size and appearance, and had apparently taken this position in its cavity without any agent to determine the misplacement.

From the left side of the heart the arch of the aorta came off, and in every way behaved as it ought to have done, save in giving off its branches. The arteria innominata was wanting, its branches coming off from the arch in the following order:

The right common carotid arose from the upper face of the transverse part of the arch, where it begins to descend toward the third dorsal vertebra, and then it ascended, in front of the trachea, to the right side of the neck, to its usual point of bifurcation into the external and internal carotids; the former gave off no branches until it reached a point opposite the symphysis of the chin, where a short axis was thrown off, from which the facial, lingual and superior thyroid arteries arose. The latter (internal carotid) presented nothing that was at all irregular in its behavior.

The left common carotid artery was derived from the outer face of the descending part of the arch and ascended, upon its old bed, to its usual point of bifurcation, acting as did its fellow on the opposite side.

The left subclavian arose from the descending part of the arch of the aorta, at a point where it crosses, and passed upward and outward to its usual line of passage to the anterior border of the first rib.

Nothing more occurred to the arterial tree to interest us, until it passed into the abdomen, where the cœliac axis came off from the posterior face of the aorta, and passed to the right of the latter to its front, where the hepatic, gastric and splenic arteries were given off. There were two renal arteries on the right side, whereas there was only one on the left.

Sex in Nature.

An instance of the superficial half-science of the day is given in the last number of the *Popular Science Monthly*, by M. Delauney. We give him the benefit of his full statement:—

"The sentimental pretensions put forward by a political school, which holds that woman is intellectually the equal of man, give a character of actuality to the question of the comparison of the sexes. This question, which it has been the custom to treat from a metaphysical point of view, is to us purely anthropological, or rather zoölogical, for we propose to show by characteristic examples, borrowed from the whole animal kingdom, that sexuality undergoes the same evolution in all species, including the human species. The female surpasses the male in certain inferior species. The males are smaller than the females among many cephalopods, and among some cirripeds. With a few exceptions, the superiority of the female prevails among the annelids, and among certain articulates, as bees, hornets, wasps; and female butterflies are larger and heavier than males, a difference being observable even among the larvæ. A like superiority of females may be observed in many fishes, as in the cyprinoids, and in reptiles. This is, however, no longer the case among the superior vertebrates. The males of birds and mammals are nearly always superior to the females.

"To sum up, the two sexes, at first unequal in consequence of the superiority of the female over the male characterizing the lowest species, become equal among species a little more elevated in the animal scale, and become unequal again in consequence of the pre-eminence of the male over the female, which is observed in all the higher species. The supremacy of the female is, then, the first term of the evolution which sexuality undergoes, while the supremacy of the male is the last term."

Now this pretended *ex cathedra* statement is nothing but a hasty generalization from half seen facts. The existence of sex differs in different species, without bearing any definite relation to the scale of development. This is true in the vegetable as in the animal world. Such assertions as the above are far from deserving the name of contributions to science.

Chloral Hydrate in Diabetes.

The Glasgow *Medical Journal* says, that Professor Eckhard shares the opinion of Mering and Musculus, that the urine of animals under the influence of chloral never contains sugar. The author has arrived at this conclusion from the following experiments:—

After injecting a certain quantity of chloral hydrate under the skin of a dog, the fourth ventricle of the brain was punctured; no sugar, however, appeared in the urine. In a second animal glycosuria was first produced by puncture of the floor of the fourth ventricle: chloral was then injected and sugar disappeared. Glycosuria may be produced reflexly by section of the vagus in the neck and stimulation of proximal extremity; but the experiment fails in chloralized animals. Similarly no sugar appeared in the urine of a dog made to breathe carbon monoxide, when chloral (five grams) had previously been administered. This evident influence of chloral over the excretion of sugar by the kidneys, has been turned to account in the treatment of diabetes; in two patients who were subjected to this method of treatment, a marked decrease was observed both in the quantity of urine and in the amount of sugar which it contained.

Congenital Absence of One-half of the Cerebellum.

At a recent meeting of the Pathological Society of London, Mr. Pearce Gould showed the occipital bone of a man whose cerebellum consisted of the left hemisphere only. The man was aged eighty when he died, and three months previously had been an inmate of the Lambeth Workhouse Infirmary. All that was known of his history was, that he had been a gardener in the same situation for sixty years. While in the infirmary, he was confined to his bed, but was able to sit up in bed, and with assistance walked to the lavatory. He was very quiet, but quite rational, and no evidence of nerve lesion was observed. The deformity was only discovered some weeks after death, in the dissecting-room of the Westminster Hospital; and the brain was so soft, that it was found impossible to preserve it. The left hemisphere of the cerebellum appeared normal, but the right hemisphere was entirely absent. The spinal cord appeared to be symmetrical. The occipital bone showed a large cerebellar fossa on the left side, and only a very small and shallow one on the right. The groove for the superior longitudinal sinus continued across this fossa to the jugular foramen, where it was joined by the superior petrosal sinus which grooved the mastoid bone. There was thus no groove in the usual situation of the right lateral sinus. The malformation was evidently congenital.

Hydrocyanate of Iron in the Treatment of Neuralgia.

Dr. J. Thos. Stovall, of Columbia, Ala., calls attention, in *Gaillard's Medical Journal* for Oct., 1881, to the value of hydrocyanate of iron in the treatment of neuralgic affections. He regards it as an anodyne, a hypnotic and an analytic tonic, possessing highly sedative properties. He has found it most beneficial in cases of neuralgia dependent upon or connected with an anæmic condition of the system, and in those obstinate cases of neuralgia assuming periodicity. He generally gives it together with quinia and morphia in the following combination:—

℞. Quinia,	grs. xij	
Hydrocyanate of iron,	grs. xviij	
Morphia,	gr. j.	
Ext. gentian vel valeria,	q. s.	M.

Make pillular mass; make 12 pills.

Sig.—Take one pill every three hours till six are taken, wait six hours and take balance.

Communicability of Syphilis by Suckling.

In the *Giornale Italiano di Soresina* (1880, p. 15), Professor Scarenzio relates a case, which, if free from error in observation, is of much importance. A healthy young woman, aged 19, married, in December, 1874, a vigorous young man, lately returned from his regiment. In September, 1875, she gave birth to a weakly in-

fant, which developed symptoms characteristic of inherited syphilis. When seven months old, its lips became the seat of erosions and ulcerations at the commissures. At the same time the mother, who had exclusively suckled the child, saw a chancre, accompanied with enlarged glands, develop on the right nipple, shortly followed by a characteristic syphilitic eruption. She gave birth to another syphilitic child in July, 1877. The author infers, from this case, that a woman may bear a syphilitic child to a syphilitic father, and remain herself uninfected; and, further, that it is imprudent to cause a syphilitic infant to be nursed by its mother, unless the latter should previously have exhibited symptoms of syphilis.

Santonine Against Ascarides.

The medication par excellence against ascarides, and which has dethroned other forms of treatment, is that by the glucoside of semen as against santonine, which is constant in its effects, tasteless, and active in small doses.

It was discovered in Germany as recently as 1830. At the dose of three to eight grains it induces xanthopsia, and a reddish coloration of the urine, but expels the worms completely, and without pain. M. Baylet (*Revue de Thérap. Med. Chirurgicale*), recommends the following prescriptions:—

1st. For a child under three years:—

℞. Santonin, gr. iij
Calomel, gr. iij. M.
Et divid. in chart, No. viij.

2d. Children from three to twelve years:—

℞. Santonin, gr. iij
Calomel, gr. vj. M.
For eight powders.

3d. For an adult:—

℞. Santonin, gr. vj
Calomel, gr. ij
Jalap pulv., gr. iij. M.
For eight powders.

SIG.—One of the powders to be taken each morning in honey. On the fourth day, a laxative, preferably castor oil, should be taken.

Bicarbonate of Soda in Tonsillitis.

M. Giné, Professor of Clinical Surgery, at Madrid, affirms that the repeated application topically of bicarbonate of soda, is of incontestable efficiency in tonsillitis. The powder may be projected through a tube on to the inflamed parts or applied directly with the finger.

The relief is often immediate, and the cure often rapid, sometimes requiring but twenty-four hours. The application is rarely inefficacious and often aborts the disease in its prodromal stage.

M. Giné also considers these applications of great benefit in hypertrophy of the tonsils, often obviating the necessity of amygdalotomy.

Special Reports.

NO. XXI.—DISEASES OF THE KIDNEYS.

Recent investigations into diseases of the kidneys and associate parts have been chiefly in the direction of their pathology. Little new has been brought forward in regard to treatment. Pathology has, however, led to greater exactness in diagnosis, which is the first step toward successful therapeutics.

THE RESULTS OF A NEPHRITIS.

In sketching the progress of diseased conditions, Prof. POTAIN said, in a recent lecture (*Revue Médicale*, March, 1881):—

Take an interstitial nephritis which has been induced by the impression of humid cold. During its course, modifications in the peripheric circulation will supervene, and you may have hypertrophy of the left ventricle; then, under the influence of a slight external cause, the renal lesion attains the secretory elements, and a uræmia appears; the stomach in its turn suffers, and disorders of digestion of a slow chronic form react upon the other organs—the lung, for instance, becomes the seat of bronchitis or apoplexy; the circulation is effected with difficulty, the cavities of the right side of the heart become affected in their turn, and hypertrophy; the action of the organ is enfeebled, a systole exists, the disturbances in the circulation increase, the liver and kidneys become congested, cerebral symptoms appear, and the patient dies. This is the succession of facts, and according to the period at which you are called to the patient, the primary cause will have ceased to be accessible to therapeutics. Are you, then, to combat the actual symptoms? No, but proceed backward to those which are still attainable.

AMYLOID DEGENERATION OF THE KIDNEY.

An investigation on this subject is published by WAGNER in *Archiv für Klin. Med.*, *Bd.* xxviii. As to cause, he found that out of 265 cases, 136 accompanied phthisis; 56 occurred along with disease of bone (non-syphilitic); 36 accompanied syphilis; 30 were found in connection with certain rarer diseases; and with regard to 7 no probable mode of origin was apparent.

Another portion of this paper deals with the symptomatology of waxy kidney. In comparatively few cases were the symptoms observed during life so closely as to be of service; only 24 appear to have been available, and of these the majority were only under observation for very

limited periods. Studying them in detail, WAGNER separates them in four groups:—

1. Slight amyloid degeneration of the cortical or the medullary substance, or of both, without alteration of the epithelium or of the stroma. This variety was hardly observed clinically.

2. Greater or less waxy degeneration of the cortical or the medullary portion, with a varying amount of fatty degeneration of the epithelium, without changes in the stroma.

3. The same waxy degeneration, along with fresh interstitial changes.

4. Waxy, contracted kidney.

With regard to the condition of the urine in these cases, WAGNER found that it was almost invariably diminished in quantity, and this without diarrhœa, perspiration, or increasing œdema being present. In a few cases the urine was of normal quantity, and only in two does it appear to have exceeded that amount. The quantity of albumen was, in 13 cases of the 15 belonging to the first two groups, in medium or in great amount; but in two cases it was at the commencement small in quantity, afterwards increasing. The tube-casts varied much in number from one day to another. They were for the most part of medium diameter, and usually hyaline, sometimes fatty. WAGNER believes that œdema is more rarely met with in such cases than is generally supposed. In conclusion, he observes that while waxy kidney may often be diagnosed with care, there are many cases in which such a diagnosis cannot be arrived at with any certainty.

PATHOLOGY OF BRIGHT'S DISEASE.

The "Lumleian Lectures" delivered before the London College of Physicians were this year upon Bright's disease, and the lecturer was Dr. REGINALD SOUTHEY, of St. Bartholomew's Hospital. He closed the course with some remarks on the name, "Bright's Disease," and what it meant.

Bright's disease remains for us, at present, a good term under which to group together and study several very important clinical phenomena intimately connected with, and dependent on, some variously marked forms of inflammatory degenerations of the kidney, all of which still possess something in common. The symptoms entailed are mainly the consequence of a local disease.

We are unable to accept Gull and Sutton's idea, that interstitial atrophic kidney is a form so separate by its histology, or by the order of its secondary events, or by the intrinsic nature of its complications, as to justify us in constituting it a wholly distinct disease.

We reserve our opinion that Bright's disease is a real entity, and that, while granular atrophy may be a consequence of this in its most gradual and complete degree, it is the renal disease which gives the characteristic features to the widespread general phenomena.

Bright's disease may be primary or secondary, acute or chronic; its consequences are best followed by recollecting what the functions of the kidneys are, and what their non fulfillment must effect. These are, primarily, to maintain the blood at a proper specific gravity, by removing excess of water and excess of salts from it, as well as special nitrogenous excreta. The duty of the kidney is to regulate the quantity, as well as the quality, of the blood—a matter sometimes lost sight of. If the blood fluid be allowed, at any time, to swell like a flood, either dropsy, the transudation of its more watery part must take place, or the blood-channels must dilate. If excess of salts accumulate in the blood, the specific gravity or weight of the blood column must rise, and increase the friction through the capillaries; it comes, then, to strain first the channels in which it is confined, the chambers of the heart, and the blood vessels, and to tax unduly the pump power of the heart, and the muscular walls of the arteries. If nitrogenous excreta cannot escape by the kidneys, they accumulate in the blood, or must make a way out for themselves by vicarious channels; maintained in the blood, they interfere with the chemical nutritive changes, perhaps effect that general lowering of the body temperature which is characteristic of the uræmic state; making their passage out by the intestines, skin, or serous membranes, they surely, sooner or later, provoke inflammatory changes. Just in so far as Bright's disease is held to comprehend all these phenomena of suddenly or gradually abrogated renal functions, we hold it to be a useful name.

DIABETES MELLITUS.

Some observations on the occasional absence of sugar in the urine of patients suffering from saccharine diabetes are made by Dr. R. SCHMITZ in the *Lancet*, May, 1881. He observes:—

After attacks of diarrhœa in diabetics I have always found, upon examination of the urine, a marked diminution, or even total disappearance, of the sugar. So far as I am aware, a chemical examination of the diarrhœtic discharges has not hitherto been made, whereby one might be enabled to decide whether that fact is to be ascribed to the expulsion of the sugar with the other contents of the intestine, or whether these discharges contain only the products of its decomposition. Be this as it may, the fact itself remains certain, and speaks in favor of the views I have adduced, in further support of which is the circumstance that there is no better treatment for diabetes than a diet practically free from sugar and amylaceous ingredients; for here the amount and quality of the pancreatic juice are sufficient to meet the trifling quantity of sugar present. The practitioner who, like myself, is in the position of having a large number of diabetics under treatment at the same time (in the summer of last year my *clientèle* included one hundred and ten such patients), may easily observe how exceedingly diversified

is the immunity toward sugar in the case of individual patients; in other words, how far the quantity and quality of the pancreatic juice suffices for the satisfactory transformation of the sugar in different cases. Thus one patient will tolerate twenty grams of brown bread (two-thirds of an ounce), but not even ten grams of white bread (a third of an ounce); another can eat both with impunity, and the same quantities of lentils and peas besides; a third, even rice and potatoes, in even larger amount; while another cannot take any of these whatsoever; indeed, not even some starchy gluten bread or leafy vegetables, unless they have been deprived of the stalks with every possible care. I may remark that I always seek to prescribe for each patient a special diet suited to the individual.

THE RETINAL CHANGES IN NEPHRITIC DISEASES.

A great deal of attention has been given to this matter lately. At the last meeting of the Ophthalmological Society of Great Britain, Drs. BRAILEY and EDMUNDS presented a paper on the subject. They said that in chronic Bright's disease there is (as often has been described), a hypertrophy of the walls of the arteries throughout the body, especially affecting the middle and outer coats. In addition to this, there is, in the kidney and in the well known white opaque patches of the retina, a thickening of the intima, leading to an occlusion of the majority of the arteries of the part. This condition is accompanied in each organ by degeneration and inflammatory changes. This degeneration affects in the kidney the epithelial cells of the tubules, and in the retina the nerve-cells, the nerve fibres, and the fibres of Müller. The authors believed this affection of the arteries to be an exaggeration of the endarteritis often observed in the larger trunks of the body generally, where it gives rise to atheromatous patches; and that it precedes and gives rise to the other inflammatory and degenerative changes encountered in the kidney and retina.

ELECTRICITY IN DIABETES INSIPIDUS.

This troublesome complaint seems at times to be controlled by electricity. A quite recent case, reported to the *Lancet*, Oct. 29th, by Dr. C. P. B. CLUBBE, deserves to be quoted in full, to illustrate its effects:—

C. H——, aged thirty-five, housewife. This woman presented herself as an out-patient at the Kidderminister Infirmary in October, 1878, suffering from diuresis. She was at that time passing from eighteen to twenty pints of urine per diem. It was light colored, of very low specific gravity, and contained no sugar. The drugs that are recommended for this disease—namely, iron, nux vomica, valerian, and bromide of potassium, were all tried in turn, but without any marked effect. The woman at this time was losing flesh. She was then ordered electricity (faradaism) to be applied over the region of her kidneys every day for about twenty minutes at a time. In the table below there is given the daily average for each week of the amount of urine in ounces during the time this treatment was continued:—

	Daily average.		*Daily average.*
1st week... ...	237 oz.	11th week... ...	151 oz.
2d "	217 "	12th "	154 "
3d "	163 "	13th "	154 "
4th "	154 "	14th "	123 "
5th "	138 "	15th "	103 "
6th "	113 "	16th "	130 "
7th "	140 "	17th "	129 "
8th "	157 "	18th "	123 "
9th "	168 "	19th "	108 "
10th "	160 "	20th "	117 "

This shows that there was a great improvement up to the seventh week; after this the daily average is seen to vary but slightly. At the end of the twentieth week all treatment was left off. During this time she had improved in her general health. She was seen six months afterwards, and was found much in the same state as when she left off using the battery. She was no worse, but was still passing from six to seven pints of urine daily. This case shows that this treatment (probably the most rational of all), for this disease, may be tried with advantage.

ATROPHY OF THE KIDNEY.

The various forms of atrophy of the kidney have been studied by Dr. ZIEGLER, an abstract of whose results we find in the London *Medical Record*: He starts with the investigation of senile atrophy of the kidney, in which, obviously in consequence of generally diminished nutrition, there occur enfeeblement of the circulation, wasting of the glomeruli, first at the periphery, then disappearance of the tubules connected with them, and, finally, more or less extensive small-celled infiltration. The arterio sclerotic form of granular atrophy stands next to this. Here, the most important changes are wasting of the glomeruli, collapse and atrophy of the tubules, and, finally, hyperplasia of connective tissue. Fatty degeneration occurs secondarily, but the cells become smaller, like those of the looped tubes; most contain cylinders. The vessels are widened, and this seems to be the cause of the increase of urine. The embolic form is similar to the latter. By obstruction to the greater circulation, and increase of the heart's action, the same changes take place in the kidney, which apparently originate in wasting of the glomeruli, perhaps in consequence of exudation into the capsules. Great interference with the nutrition of the kidney of different sorts may lead to extensive degeneration of the parenchyma; but regeneration takes place if the glomeruli have not been involved, or if the destruction be not too great or continued. When the latter

occurs, atrophy results; as occasionally happens, for instance, in acute jaundice. It may also follow parenchymatous degeneration, as seen in the small patches of atrophy on the surface of the large white kidney; but general atrophy occurs only rarely. The glandular degeneration, in all those forms which he groups together as interstitial indurative nephritis, is of secondary importance. The atrophy of the tubules is the result of their abolished function, of the destruction of the glomeruli, which latter depends upon fibrous hyperplasia of the capsules, or on a concomitant disease of the arterial system. Besides the form of atrophy from compression, he gives three groups of atrophy of the kidney. The first, of which the type is the arterio-sclerotic form, is dependent on simple interference with the circulation, and must be distinguished from the inflammatory forms. In the second, he classes all the degenerative processes which are followed by destruction of the epithelium (embolism, temporary ligature, chemical irritants), excluding regeneration. In the third group (interstitial nephritis), there is a combination of epithelial degeneration with other processes—cellular infiltration, proliferation of the epithelium of the capsules and glomeruli, wasting of the vascular tufts. Both the latter groups—which differ only quantitatively, not qualitatively, as in both there are epithelial degeneration and hyperplasia of connective tissue—are, nevertheless, to be kept distinct, as there is no "identical pathological principle," as Weigert thinks.

URÆMIA AND ITS TREATMENT.

In a recent paper in *Le Practicien*, Professor Sée lays down the rule that when a person is attacked with dyspnœa without obvious cause in the thoracic organs, the urine should be examined for albumen. He relates two cases, in which the dyspnœa simulated spasmodic asthma, and was not readily diagnosed on that account. He also publishes notes of the case of a young woman attacked by urgent dyspnœa, with great oppression and cyanosis. There was a faint systolic apex murmur, and a few râles over the lungs posteriorly, but nothing sufficient to account for the symptoms. The urine was very albuminous. There was no œdema. She died in a few days. The kidneys were large and red.

In the *Journal für Kinderkrankheiten*, of recent date, Dr. Prætorius publishes the details of eleven cases of uræmia treated with *muriate of pilocarpin*, and arrives at the following results:—

1st. The drug is of distinct value, and should be injected so soon as the symptoms of headache, irregular pulse, vomiting, and diminished secretion of urine appear.

2d. Its administration is only contraindicated in cases of extreme weakness and threatening collapse, or general anasarca.

3d. It has no effect in cases of glomerular nephritis; but, since this condition cannot be diagnosed by the microscope, its administration should not be prevented.

4th. Pilocarpin is not only a diaphoretic, but also has a direct influence on the renal secretions.

Benzoic acid is still relied upon by Dr. Da Costa, of Philadelphia:—

℞. Acidi benzoici, gr. xx
Syrup tolu., ℥ ij. M.

Sig.—This much to be given every third hour, largely diluted with water.

A THEORY OF URÆMIA.

The Glasgow *Medical Journal* gives the following extract of the late theory of uræmia advocated by Drs. Feltz and Ritter:—

1. The proportion of potassium salts, both in blood and urine, varies with the quantity and quality of the food; in dogs badly and insufficiently nourished, it falls to the minimum.

2. A special and prolonged alimentation, consisting of materials containing sodium salts, reduces the proportion of the potassium salts to nearly the same degree as bad and insufficient feeding. The demineralization of the blood is greater, as regards potassic salts at least, than when the diet includes potash in some form.

3. The quantity of potassic salts existing in the blood influences to a certain degree the quantity of urea necessary to provoke grave symptoms or death.

4. Suppression of the renal function by simultaneous ligature of both ureters causes a sensible increase in the proportion of potash salts in the whole blood and in the serum, notwithstanding supplementary gastro-intestinal excretion; in this respect the alkaline salts follow the same law as urea and the extractive matters, both of which are augmented in the blood under similar conditions.

5. The grave symptoms of experimental uræmia not being in proportion to the degree of retention and accumulation of urea or of urinary extractive matters in the blood, and corresponding, on the contrary, to the phenomena produced by the injection of fresh normal urine, or of equivalent solutions of potassium salts, it seems probable that the true toxic agents in cases of so-called uræmia are always the potassium salts which have accumulated in the blood.

NITRO-GLYCERINE IN BRIGHT'S DISEASE.

This agent has been prescribed by Prof. James C. Cameron, M.D., of Montreal, in a case reported in the *Canada Med. Record*, last July. He used a one per cent. alcoholic solution, and of this the dose was at first one, and afterwards two minims, in syrup of tolu. He says of it in

this connection: The case after the first month was hopeless, and treatment was only palliative. In carefully reviewing it, my opinion is that nitro-glycerine prolonged life for nearly two months. It increased markedly the quantity of urine passed daily; but although the *relative* amount of albumen was considerably reduced, the *absolute* amount was not too much affected. The œdema and labored breathing were undoubtedly relieved by its use, and the pulse rendered softer and less corded. From the careful and daily study of this case, I am convinced that in certain conditions, nitro-glycerine is a valuable remedy in the treatment of chronic Bright's disease, and may be administered with perfect safety and without unpleasant symptoms for a considerable length of time.

(To be continued.)

CORRESPONDENCE.

A Stab in the Neck, Severing Internal Jugular Vein and Recurrent Laryngeal Nerve. Complete Paralysis of the Right Vocal Cord. Recovery from the Injury, and Finally, Complete Restoration of the Voice.

ED. MED. AND SURG. REPORTER:—

On the 21st day of June, 1879, John H. Maccallum, a medical student, nineteen years of age, received a deep stab in the right side of the neck, which severed the inferior laryngeal nerve, and also severed or severely wounded the internal jugular vein.

The assault was entirely unprovoked, and the young man did not realize, at first, that he had received a dangerous injury. It was only his coolness and presence of mind that saved his life. Grasping the wound with one hand and holding it as tight as he was able, thus controlling the flow of blood in a great measure, he hastily got into his carriage and with the other hand drove to the office of Dr. Wilbur, his preceptor.

The doctor not being far distant, was speedily summoned, and on seeing the nature of the injury and uncontrollable character of the hemorrhage, sent immediately for the assistance of Dr. E. M. Moore. On the arrival of Dr. Moore the young man was unconscious and very nearly exhausted from loss of blood.

On examination it was found that the injury involved the internal jugular vein, from which the blood was flowing copiously, but by means of acupressure the hemorrhage was arrested at once.

Acupressure is the method which Dr. Moore advocates, and always employs in cases of hemorrhage from wounded veins. He even regards it as far preferable to the ligature in such cases.

After regaining consciousness, the young man found, on attempting to speak, that he was entirely unable to make a laryngeal sound.

For the first three or four weeks he was in a very weak and exhausted condition, and suffered excruciating pains in the right temple, supra-orbital and occipital regions. He recovered gradually, and in about six weeks was out, and at the end of three months was able to resume his duties.

For three months he was completely aphonic. During the first portion of this time he was not able to produce the faintest whisper. After that he began gradually to regain his voice.

November 1st, 1879, a little more than four months after the injury, he called at my office for a laryngoscopic examination. He could then speak in a low, hoarse, monotonous voice. The examination showed his right vocal cord to be completely immovable, and in the cadaveric position.

On phonation the sound was produced by the compensative action of the left vocal cord, which passed the median line to meet its fellow, together with a slight longitudinal tension of the paralyzed cord.

I informed him that it was extremely doubtful if the action of that vocal could be restored on account of the undoubted division of the inferior laryngeal nerve on that side, but to meet the possibility of the nerve not having been entirely or permanently destroyed, or having been to a certain extent reunited, I advised the employment of electricity, the negative pole of the faradic battery applied directly to the larynx and paralyzed muscles with the laryngeal electrode.

In case the nerve was permanently destroyed the application of the electricity would stimulate and strengthen the other laryngeal muscles to assist them to compensate for the loss of motion in this cord.

Accordingly I made the applications daily, or almost daily, for a short time; then less frequently, but continued them during the following winter and spring. His voice gradually grew stronger and more flexible, and by the 1st of July, 1880 he began to have quite a natural, though somewhat monotonous voice.

No apparent improvement, however, was affected in the condition of the paralyzed muscles, as no increased lateral movement in the cord was perceptible. His ability to modulate his voice continued to increase until he was able to sing in the natural scale up to C. At this note his voice stopped. His inability to produce higher notes than C continued until in February, 1881, when he called, quite delighted, to tell and show me that he could sing and speak about as well as he ever could. To the present time the cord remains completely paralyzed—a slight apparent lateral movement takes place, but this is only relative.

This case is of interest:

First. As a case of traumatic injury to the recurrent laryngeal nerve.

Second. As a rare case of recovery from an injury involving the internal jugular vein.

Third. It illustrates in an admirable manner the action of the crico-thyroid muscle as a tensor of the vocal cord, it, as is well known, being supplied by a motor filament of the superior laryngeal nerve, and consequently, in this case, remaining intact.

Also, it has been very interesting to watch in the laryngeal mirror the gradual development and increased activity of the muscles on the left side of the larynx, to compensate for the want of

motion in the paralyzed muscles on the opposite side; and also to observe the development of the right crico-thyroid muscle as shown in the gradually increased longitudinal tension of the cord with a corresponding improvement in the voice.

Rochester, N. Y, J. O. Roe, M.D.

Vaccination.

Ed. Med. and Surg. Reporter:—

It will doubtless seem to many that nothing new could be learned of vaccination. Be that as it may to the many, still I feel sure that a few, like myself, want additional light on the subject.

Here, hardly a medical journal is issued without some reference to the subject, but I have looked in vain for certain points which may be almost universally known, but of which I am in ignorance.

I will put these points in the form of questions, and sincerely hope that some of the many readers of the Medical and Surgical Reporter will answer them in full:—

1st. Are there persons, never having had any vaccine scars or marks, who are insusceptible to the action of vaccine virus?

2d. If so, are they exempt from variola?

3d. Will vaccination of the pregnant female protect the unborn child, and render it exempt from variola or insusceptible to vaccine virus?

4th. Are persons who have been repeatedly vaccinated, yet without permanent scars, protected?

My reasons for asking the above questions will be explained when I state that since birth I have been vaccinated about twenty times, in nearly fifty places or spots; that twice spurious sores resulted; leaving no vaccine mark or scar; and that in the other vaccinations the results were entirely negative.

Since May 1st, 1881, I have been vaccinated about twelve times, in thirty spots; results negative. The virus used was freshly dried bovine virus, on many points. The operation was usually performed by myself, and with great care, though several times other physicians vaccinated me. My mother was successfully vaccinated more than a year before my birth.

The all important question to me is, "am I protected?" One of my brothers is alike insusceptible to the action of vaccine.

A prominent physician of this city informed me that he vaccinated his wife shortly before confinement, and that the child of which she was soon delivered, has always been insusceptible to the action of vaccine virus, though he has vaccinated it in more than seventy spots, using reliable bovine vaccine virus. As he supplied neighboring physicians with virus, he invariably received his fresh, and while fresh, used it.

Several other cases of insusceptibility to the action of virus has come under my observation, but the above two cases, as samples, will show the reasons I have for trespassing upon your valuable time and space, hoping that this article may receive a full and explicit answer.

E. C. Helm, M.D.

Chicago, Ill.

News and Miscellany.

Smallpox at Paris.

Within ten years smallpox has twice become epidemic at Paris, proving of great gravity at both periods, and at the present moment another epidemic of the disease appears imminent. Those works then which demonstrate the necessity of decisive measures of prevention, should now receive special notice. One of the most important of these is the report presented by M. Bouchardat to the Council of Public Hygiene and Salubrity of the Seine Department.

He makes a striking statistical tableau of the ravages caused by the disease in Paris during the past twenty years; this permits a comparison of the mortality occurring at the same period of time in different years and in different months of the year. These statistics have verified the oft repeated statement: "That the general mortality is considerably less during the years which immediately succeed a great epidemic in any city or determined locality."

If the figures relating to the great epidemic of 1870 be examined, it will be seen that the mortality became progressively greater. From 119 deaths in November, 1869, at the debut of the epidemic, the number increased to 1929 in December of 1870; this was the most fatal month during the whole epidemic and after that there was a rapid decrease in the mortality, which became most evident in 1872, for but eight deaths occurred in the month of September, of that year. In 1873 the epidemic seemed completely spent, for but 17 deaths from smallpox were recorded for the whole year, and the progress of the disease did not seem again to commence until the month of June, 1874. From that time the number of deaths increased slowly until the disease again became epidemic in 1879 and 1880.

M. Bouchardat then enters into the consideration of the means of preventing the spread of the disease. Instead of the separate wards in the various hospitals, he recommends the construction of a special hospital for the more complete isolation of the patients; in connection with such a hospital a maison de convalescence should be established, and the patient not allowed to leave it until there is no longer any possibility of his carrying the germs of contagion without.

M. Bouchardat also recommends a law rendering vaccination and re-vaccination obligatory. The report of Dr. Buchan, of London, shows that the number of deaths is forty times more considerable among the unvaccinated, and during 1880, at Paris, there occurred but three deaths among the military, while the deaths among the civil population reached 773, a result, in great part, due to the fact that the soldiers are always vaccinated on joining their regiments.

The Pest in Russia.

The pest has appeared in the districts of Novgorod and St. Petersburg, both men and animals being attacked.

In the commune of Malbedew fifty persons were attacked and but three died, which would seem to indicate that the disease is exception-

ally benign. Nothwithstanding the circulars recommending the burial of the animals affected with their skins, the peasants continue to skin the animals, and sell the hides without disinfection.

As is well known the great heats seem to extinguish the epidemics of pest; perhaps, says M. Tholozan, because the sand heated by the sun to 70° C. destroys the morbid germs which it might contain.

It is not then astonishing that the pest appears in Siberia during the periods of great heat.

High Thermometric Readings.

The question how far high temperatures recorded in cases of disease are to be regarded as trustworthy indications, was raised at the Clinical Society of London lately, by Dr. Stephen Mackenzie, who recorded the history of a patient under his care in the London Hospital. This woman had for a long time, puzzled the authorities of the hospital by registering most unusual temperatures; in one case 120° having been attained. She was, however, watched for a lengthened period with the utmost care, suspicion having been more than once created by the suddenness with which even very considerable differences occurred in the readings, and the final result has been to convince Dr. Mackenzie that his patient was able to raise the index at pleasure. This explanation has been more than once suggusted as the probable one for the phenomena in question.

American Doctors and Medicine in China.

A dispatch from Hong Kong, Oct. 15th, says: The Women's Hospital was opened at Tien Tsin on the 8th inst., in the presence of Li Hung Chang and other high Chinese officials. Mr. Angell, United States Minister, who is about to return via Europe, delivered an address. Miss Doctor Howard, the American missionary lady, who was instrumental in saving Lady Li, wife of the Viceroy, when she was given up by all the Chinese doctors last year, is in charge. The hospital just established in Tien Tsin, and another at Pekin, are solely due to the influence of Miss Howard. Foreign medicines in China are now, in consequence, in great favor.

Items.

—Mr. Erasmus Wilson, President of the Royal College of Surgeons, who paid the expenses of bringing the English Obelisk to London, has been knighted by the Queen, in consideration of his munificent gifts for the support of hospitals and the encouragement of medical study.

—The English *Medical Press* gives the following warning: "We are concerned, in the interest of impressionable females and weak-minded young men, to notice the arrival in England of Messrs. Moody and Sankey, of explosive revival fame. Former experience of the pernicious influences of the hystero-religious mania with which these clever men were identified, leads us to hope that most people will guard against an undue preponderence of the emotional passion."

OBITUARY NOTICES.

DR. ROBERT SHELTON MACKENZIE,

The author and journalist, died November 21st, 1881, at his residence, Philadelphia, at the age of seventy-four years. Dr. Mackenzie was born in 1808, in Limerick, Ireland, was second son of Captain Kenneth Mackenzie, author of a volume of Gaelic poetry, Glasgow, 1796. The subject of our obituary notice studed medicine in Cork, and graduated in Dublin, but did not practice, yet he always evinced a lively interest in medicine and the medical profession. This love for the profession of medicine was shown by careful reading of medical works, and his admirable reviews and notices of the same, with his prompt and continuous labors as Secretary and one of the Board of Trustees of the Philadelphia Dental School. He devoted himself to literature from his eighteenth year, when he undertook the editorship of a newspaper in England, in which capacity he contined until 1845, when he became London Secretary of a Railway Company, which latter position he resigned in 1851. In the interval he contributed largely to leading periodicals and annuals in England and the United States, and writing a weekly news-letter to the New York *Evening Star*, from 1834, and was the first regular European correspondent of the American press. Was made LL.D. of Glasgow University in 1844, and D.C.L. of Oxford, in 1844. Published Lays of Palestine in 1828, and numerous other valuable and interesting works.

Dr. Mackenzie removed to Philadelphia in Aug. 1857, and assumed the duties connected with the foreign and literary editorship of the *Press*, a daily paper in this city, for over twenty years.

In his later years Dr. Mackenzie occupied the same position on the *Evening News*.

The lively spirit and great accuracy of Dr. Mackenzie's notes as a book editor, constituted their great value. His life had been passed in intimacy and correspondence with the leading literati and politicians of his times; he had a remarkable memory for dates, events and persons, which would overflow into expression whenever he put pen to paper. Such also was his conversation, crowded with anecdotes of events and of notable persons and things.

The funeral of Dr. Mackenzie took place November 23d, and was attended by many devoted friends and distinguished literary and medical men, in spite of a drizzling cold rain. The students of the Dental College and of the Hospital of Dental Surgery, together with the Faculty and Board of Trustees were present. The Rev. R. Bethel Claxton, of St. Andrews Protestant Episcopal Church (West Philadelphia), made an able address at the house, and the remains were laid at rest in our beautiful Woodland's Cemetry. L. T.

PROFESSOR BOUILLAUD.

We announced a few weeks ago the death of this distinguished Parisian teacher, at the advanced age of 86. His great discovery was the connection between cardiac diseases and rheumatism, which had been foreshadowed by other observers, but of which he was the first to give positive proof in the living patient. He created the word "endocarditis," and gave an excellent

description of the anatomical changes which accompany that disease in its various forms, and through his exertions a fact which till then had only attracted the notice of a few medical men emerged into the full light of day and became a part of our classical knowledge. Bouillaud's greatest victory was achieved in 1831, when he obtained by open competition the chair of clinical medicine at La Charité. Like many men of his time and age, he had imbibed the notions of Broussais, and openly declared that almost all diseases were inflammations, and required to be treated by depletion of the vessels. For Broussais' milder method of applying leeches, he substituted the radical system of "saignées coup sur coup," or thrice repeated bleedings, the patient being subjected to phlebotomy for the second and third time, before he had recovered from the shock of the first, thereby losing about fifty ounces of blood in the space of a single day. The latter years of Bouillaud's career were marked by the highest distinction. He became a member of the Institute and of the Academy of Sciences. In this exalted position he seems to have chiefly acted the part of a *laudator temporis acti*, and whenever any new discovery in the circle of medical science was brought forward, he almost invariably devoted his remaining powers to the task of proving that the fact had been known long before.

We well remember him as he taught, twenty years ago, in the wards of La Charité, pointing out with unflagging zeal the success of the San grado practices he advocated. Toward the close of his life he is said to have modified them somewhat.

DR. DAVID FOULIS,

One of the most brilliant young surgeons of Scotland recently fell a martyr to his duty. This was Dr. David Foulis, of Glasgow. It was chiefly as a specialist in diseases of the throat that Dr. Foulis had made his mark. He achieved a European reputation by his performance of the operation of extirpation of the larynx, an operation which he had repeated with equal success. Recently he had occasion to perform tracheotomy in two cases of virulent diphtheria; from these cases he caught the disease, and died after a few days' illness.

QUERIES AND REPLIES.

Pleural Fistula.

Mr. Editor.—The question of Dr. M. A., "Pleural Fistula," in No. 1289 (Nov. 12th, 1881), of the MEDICAL AND SURGICAL REPORTER interests me. I would propose the following treatment, which alone will be successful, and which surely will bring success, if there is not already or should later develop, dullness at the apex of the lung, *i. e.*, deposit of tubercles. First, Dr. M. A. will find, on examination, that the fistula either goes through a rib or is connected with a rib, the periosteum of which is destroyed. The fistula should be laid open, and a piece of the rib, at least ¾ of an inch long, should be resected. Without the taking away of that piece of the rib there never will be a cure. The operation should be made under antiseptic precautions, and if possible the whole course of Lister's method followed. Then the pleural cavity should be washed out thoroughly by a four per cent. carbolic acid solution, until only the solution returns, free of any debris, etc., etc. After this a drainage tube is inserted and Lister's dressing applied. The wound is afterwards treated as any similar one, *i. e.*, the washing out of the cavity must take place whenever necessary, until at last adhesion has formed. Besides this local treatment the patient must be *systematically* fed and put under tonic treatment. I would like to know the result, and am willing to correspond with the Doctor more fully regarding the case. H. ENGEL, M.D,

Philadelphia.

Pleural Fistula.

Mr. Editor.—I think that if Dr. M. A. will inject a solution of iodine made as follows it will heal in time:

℞.	*Iodine	grs. x
	Iodide potassium,	grs. xxx
	Aqua pur.,	℥j. M.

SIG.—Inject into pleural cavity once daily and allow it to remain.

It will destroy the pyogenic membrane lining the cavity, if one, and the fistula and it will heal. Other treatment to be used as indicated. W.

Dr. F. R., of N. Y.—The treatment of emergencies, as poisoning, drowning, etc., is set forth in several pocket records or visiting lists, among others the *Physician's Pocket Record* published at this office.

Dr. S. T., of Mass.—Hiccup can often be stopped by rapid breathing, by any sudden mental impression; by repeated and rapid swallowing; or by a plate of ice cream. Medicine need rarely be resorted to.

MARRIAGES.

CHUBBUCK—PRATT.—At the old home and residence of the bride's brother, C. A. Danolds, Esq., Eagle Harbor, N. Y., October 31st, 1881, by the Rev. Dr. E. E Chambers, of Albion, N. Y., H. S. Chubbuck, M.D., and Mrs. Elizabeth D. Pratt, both of Elmira, N. Y.

GUNTHER—WILKINS.—On Thursday, November 10th, 1881, at the residence of the bride's uncle, Mr. Joseph F. Sanxay, No. 97 Gates ave., Brooklyn, by the Rev. Wayland Hoyt, D.D., Dr. C. Eugene Gunther, of New York, and Julie, daughter of James B. Wilkins, of Brooklyn.

JENKINS—HALLOCK.—On Tuesday, November 15th, at the residence of the bride's mother, by Rev. J. R. Bryan, assisted by Rev. T. H. Stockton, Dr. Olin L. Jenkins, of Danielsonville, Conn., and Miss Rhoda Hallock, of Plainfield, N. J.

LAWSON—ECCLES.—On Wednesday evening, October 5th, 1881, at the residence of the bride's parents, by the Rev. J. P. E. Kumler, D.D., assisted by the Rev. H. L. Dickerson, Dr. W. T. Lawson, of Danville, Ind., and Anna M. Eccles, of Cincinnati, Ohio.

MANCHESTER—TARBELL.—In Bethel, Vt., September 28th, 1881, by the Rev. S. A. Parker, Dr. Frank C. Manchester and Minnie A. Tarbell, both of Lebanon, N. H.

McCONNELL—CULLEY.—October 13th, 1881, by Rev. Ross Stevenson, D.D., at the house of Mrs. Martha Ann Culley, the bride's mother, Dr. Samuel McConnell, of Wellsville, and Miss Almira Culley, of Florence.

McGEE—STRAUSS.—In the Presbyterian parsonage, in Carleton, Neb., October 13th, 1881, by the Rev. J. McC. McDonald, T. J. McGee, M.D., of Carleton, Neb., and Addie L. Strauss, of West Alexander, Pa.

DEATHS.

GAMAGE.—In this city, on November 3d, 1881, Dr. Theodore A. Gamage, aged thirty-nine years.

LESLEY.—In Newcastle, Del., November 7th, 1881, Allan Voorhees Lesley.